Owner's Manual

Model 1814

Electronic Directory Telephone Entry System

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P/N 1814-065 REV J, 4/07
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Use this manual with the following models only.

All 1814 models with circuit board 1843-010 REV A and B.

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IMPORTANT NOTICE

FCC - UNITED STATES

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC Rules and Regulations. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Registration Number: **DUF6VT-12874-OT-T**

DOC - CANADA

The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational, and safety requirements. The Department does not guarantee the equipment will operate to the users satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable means of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure, for their own protection, that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

DOC Registration Number: **1736 4528 A**

Notice:

The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices subject only to the requirement that the sum of the load numbers of all the devices does not exceed 100.

Notice:

DoorKing does not provide a power transformer on units sold into Canada. Use only transformers that are CSA listed to power the telephone entry system. 1802, 1803, 1808, 1810, 1814, 1815, 1818 and all "P" series systems require a 16.5-volt, 20 VA transformer. The models 1816 and 1817 require a 16.5-volt, 40 VA transformer. The model 1812 requires a 24-volt, 20 VA transformer.

IMPORTANT INFORMATION

- Prior to beginning the installation of the telephone entry system, we suggest that you become familiar with the instructions, illustrations, and wiring guidelines in this manual. This will help insure that you installation is performed in an efficient and professional manner.
- The proper installation of the telephone entry panel is an extremely important and integral part of the overall access control system. Check all local building ordinances and building codes prior to installing this system. Be sure your installation is in compliance with local codes.
- When used to control a door or pedestrian gate, try to locate the telephone entry system as near as possible to the entry point. The unit should be mounted on a rigid wall to prevent excessive shock and vibration from closing doors or gates. Continuous vibration and shock from slamming doors or spring-loaded pedestrian gates will damage the circuit board. **Under no circumstances should the unit be mounted directly to a moving door or gate**.
- **ADA mounting requirements for door control.** The mounting of the unit shall be in such a way that the LCD display is positioned so that it is readily visible to and usable by a person sitting in a wheelchair with an approximate eye level of 45 inches and shall comply with the following requirements:
    1. If mounted vertically or tipped no more than 30 degrees away from the viewer, the center line of the LCD shall be located a maximum of 52 inches above grade.
    2. If the clear floor space allows only forward approach to the system, the maximum high forward reach allowed is 48 inches above grade to the top of the keypad.
    3. If the high forward reach to the system is over an obstruction of greater than 20 inches but less than 25 inches, the maximum high forward reach allowed is 44 inches above grade to the top of the keypad.
    4. If the clear floor space allows parallel approach by a person in a wheelchair, the maximum high side reach shall be 54 inches above grade to the top of the keypad.
    5. If the high side reach is over an obstruction of 24 inches or less, the maximum high side reach allowed is 46 inches above grade to the top of the keypad.
- **When used to control a vehicular gate with an automatic gate operator, the telephone entry system must be mounted a minimum of ten (10) feet away from the gate and gate operator, or in such a way that a person cannot operate the entry system and/or touch the gate or gate operator at the same time**.
- Be sure that the system is installed so that it is not directly in the traffic lane. Goose neck mounting post and kiosks work well for these type systems. When planning where to locate the system, take into consideration traffic lane layouts, turn around lanes for rejected access, conduit runs, power availability, etc.
- Environmental factors must also be taken into account. Surface mount units are designed for direct outdoor installations, however it is preferable to protect them from direct exposure to driven rain or snow whenever possible. Flush mount and wall mount units must be protected from direct exposure to the elements. Be sure that ample lighting is provided so that guest can read both the directory and the operating instructions at night.
- This telephone entry system contains a number of static sensitive components that can be damaged or destroyed by static discharges during installation or use. Discharge any static prior to removing the circuit board from the lobby panel by touching a proper ground device.
- **Instruct the end user to read and follow these instructions. Instruct the end user to never let children play with or operate any access control device. This Owner's Manual is the property of the end user and must be left with them when installation is complete**.

FEATURES

- Can provide service for up to 3000 residents.
- System keypad will emit DTMF tones after a call is answered allowing the system to be used with auto-attendants, answering machines, etc. **This feature is available with the following units only**:

  Model 1814 with 1843-010 circuit board, REV B or higher.
- Directory codes can be set from 1 to 4 digits in length and can be randomly assigned.
- 10 programmable area codes allow the system to be used in areas requiring 10 and 11-digit dialing.
- Two internal relays allow the system to control a main entry point plus an additional entry point.
- Large A and Z scroll buttons provide an easy method to locate names in the electronic directory. Buttons can be held to scroll through the directory rapidly, or pressed and released to scroll one name at a time.
- All name searches start in the middle of the database to reduce scroll time.
- "One Touch" Call button allows users to initiate a call without having to enter a directory code on the system keypad.
- Backlit super-twist LCD uses large ½-inch characters that are easy to read.

SECTION 1 - INSTALLATION

Order your telephone line at least two weeks prior to the planned installation date. This will assure that a phone line is available when the unit is installed. The telephone company will require the following information from you:

Type:	Touch Tone, Loop Start
Ringer Equivalence:	0.0 A
Jack Type:	RJ11C
FCC Registration (US):	DUF6VT-12874-OT-T
DOC (Canada):	1736 4528 A
Electrical Listing:	Complies with U.L. 294 - ETL Listed

CALLER ID: You may want to consider ordering caller ID blocking from the telephone company for the entry system phone line. Without caller ID blocking, tenants with the proper phone equipment will be able to identify the telephone number that the entry system is installed on. This may or may not be desirable.

1.1 INSTALLATION GUIDELINES – ALL SYSTEMS

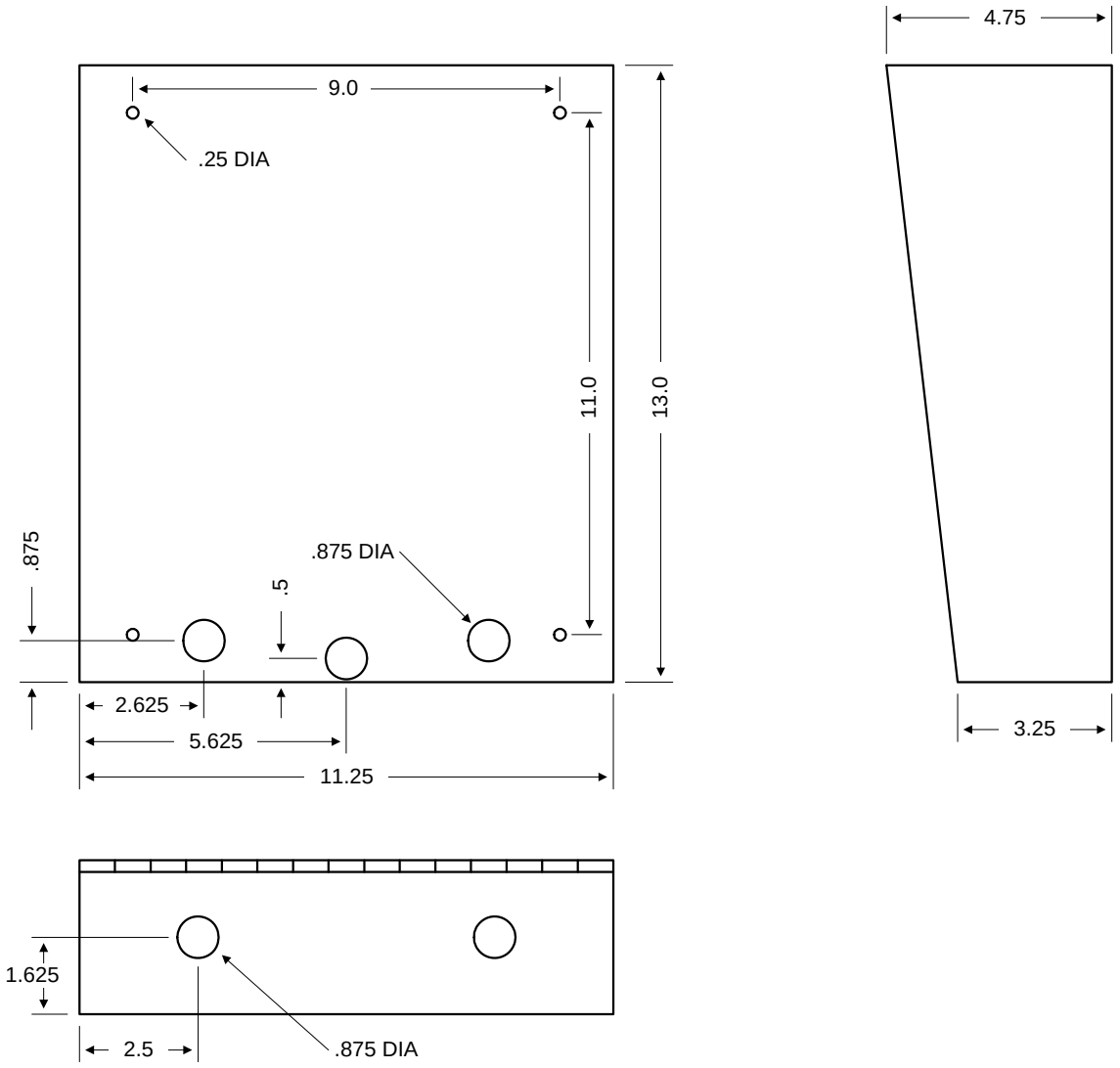
1. Open the cabinet of the telephone entry system and disconnect the keypad ribbon cable from the main circuit board.
2. Remove the 6-32 x 1/2 round head screws from the upper corners of the circuit board.
3. Remove the circuit board by gently pulling it out of the main terminal edge connector. **CAUTION** - the circuit board contains static sensitive components. Discharge any static electricity from your hands by touching a proper ground device before removing the circuit board. Place the circuit board where it will not be damaged.
4. Mount the cabinet of the telephone entry system. Be sure that mounting screws do not protrude into the cabinet where they could cause a short on the back of the circuit board. Make any necessary conduit connections.
5. Route wiring into the cabinet. Do not apply any power at this time.
6. Clean out the cabinet. Be sure that all dirt, metal and/or wood debris is removed from the cabinet and that the terminal strip edge connector is clean and free of any loose particles.
7. Re-install the circuit board into the cabinet by gently pushing the circuit board terminals into the edge connector. **CAUTION** - the circuit board contains static sensitive components. Discharge any static electricity from your hands by touching a proper ground device before removing the circuit board.
8. Secure the circuit board to the cabinet using the screws removed in step 2.
9. Plug the keypad ribbon cable into the circuit board. The cable points down.

WARNING! If this entry system is used to control a vehicular gate with an automatic gate operator, the entry system must be mounted a minimum of ten (10) feet away from the gate and gate operator, or in such a way that a person cannot operate the entry system and touch the gate or gate operator at the same time.

1.1.1 Surface Mount Units

Surface mount units can be mounted directly to a wall or pilaster, or can be post mounted using a DoorKing heavy-duty mounting post (p/n 1200-047 and 1200-048). Be sure the unit is mounted securely and is not subject to vibration from closing doors or gates.

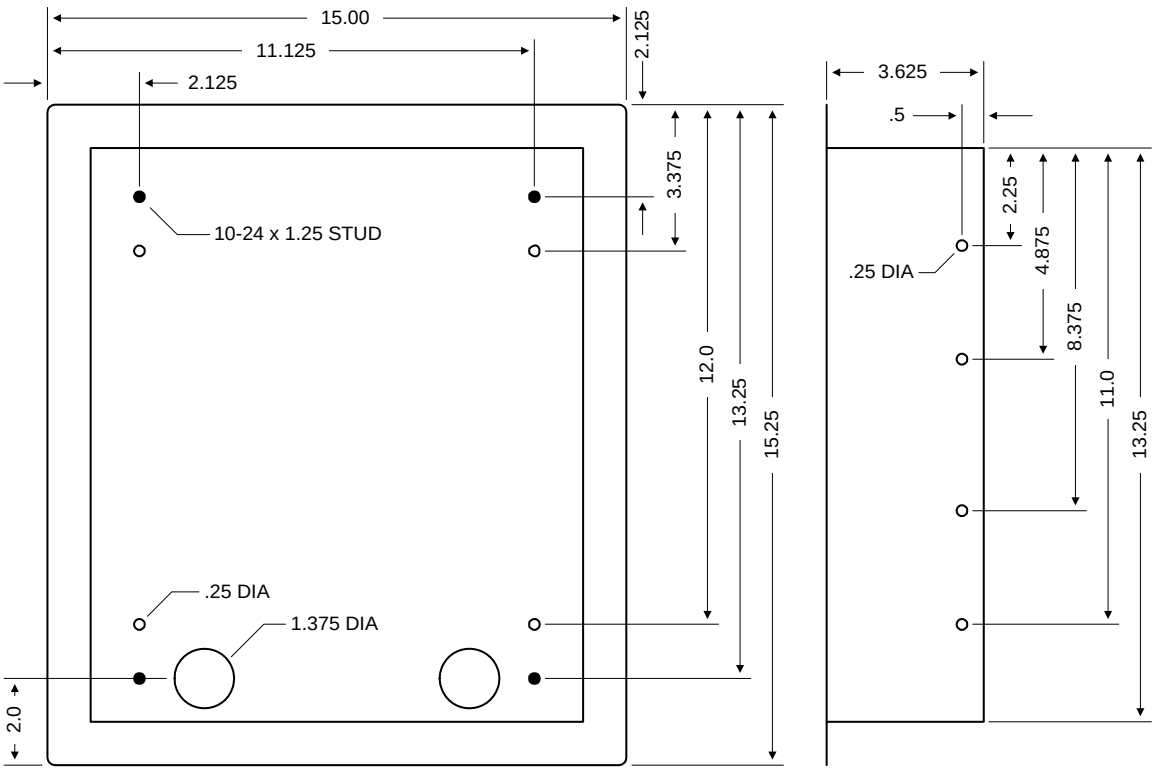
WARNING! If this entry system is used to control a vehicular gate with an automatic gate operator, the entry system must be mounted a minimum of ten (10) feet away from the gate and gate operator, or in such a way that a person cannot operate the entry system and touch the gate or gate operator at the same time.

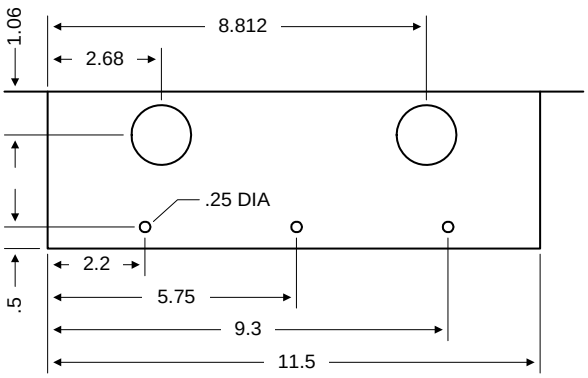


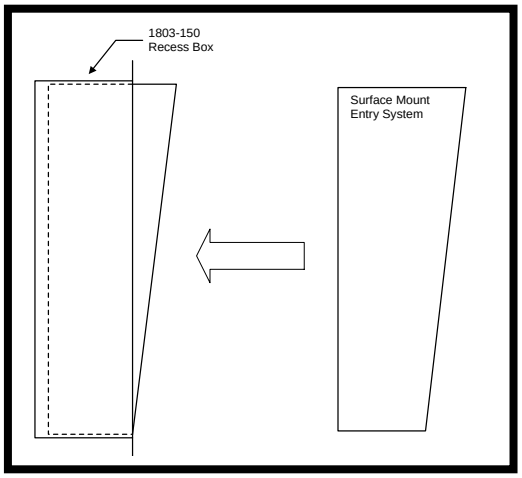
1.1.2 Surface Mount Units with Recess Box

Surface mount units can be semi-flush mounted into a wall or pilaster by using the optional recess-mounting box (p/n 1803-150). Be sure the unit is mounted securely and is not subject to vibration from closing doors or gates.

WARNING! If this entry system is used to control a vehicular gate with an automatic gate operator, the entry system must be mounted a minimum of ten (10) feet away from the gate and gate operator, or in such a way that a person cannot operate the entry system and touch the gate or gate operator at the same time.



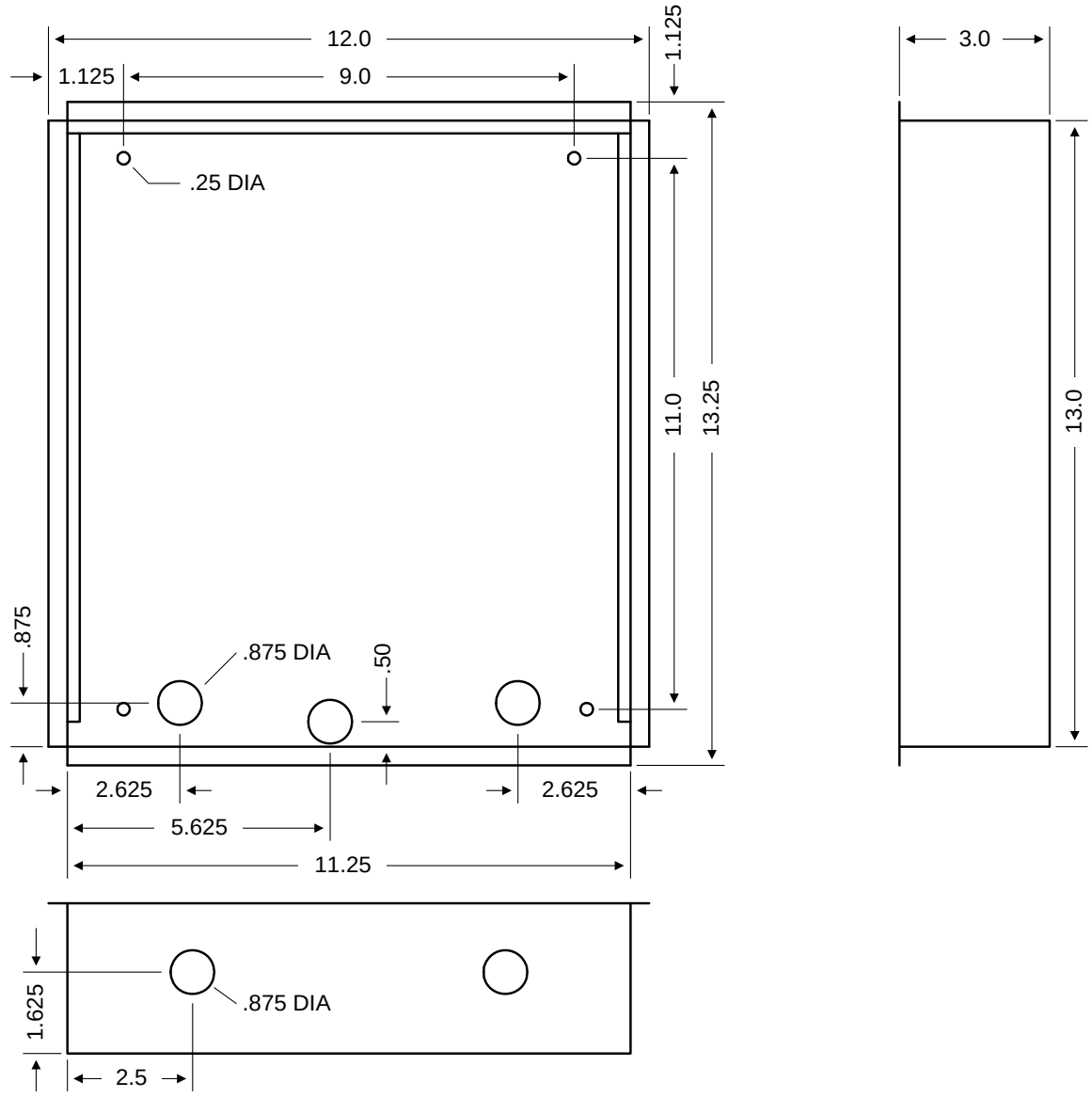




1.1.3 Flush Mount Units

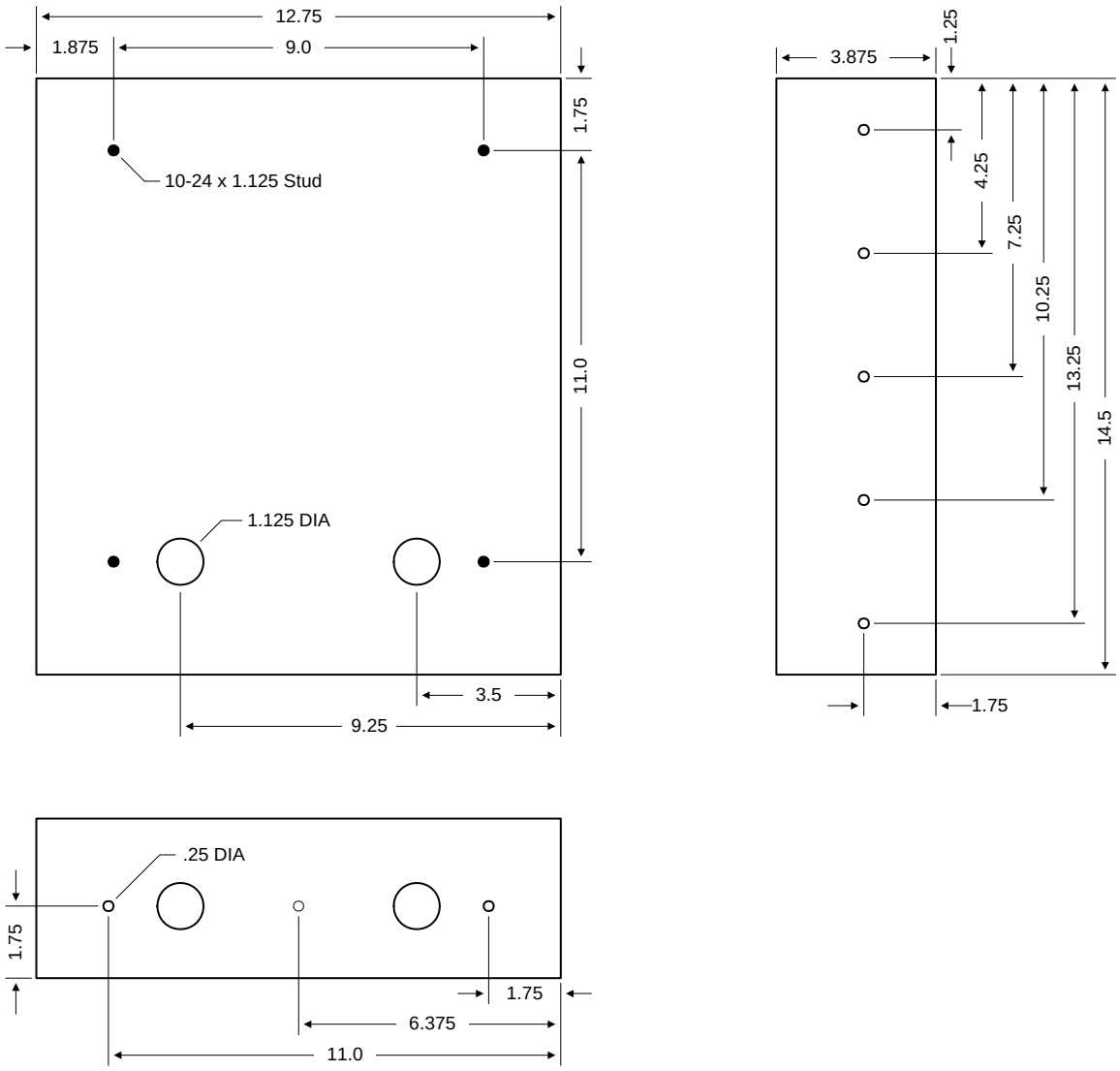
Flush mount units are installed into a wall with flush mount kits 1814-065 (stainless) or 1814-066 (gold). Flush mount kits are not included with the entry system. Flush mount units are not designed for direct exposure to the weather. Be sure the unit is mounted securely and is not subject to vibration from closing doors or gates.

WARNING! If this entry system is used to control a vehicular gate with an automatic gate operator, the entry system must be mounted a minimum of ten (10) feet away from the gate and gate operator, or in such a way that a person cannot operate the entry system and touch the gate or gate operator at the same time.



1.1.4 Flush Mount Rough-in Box

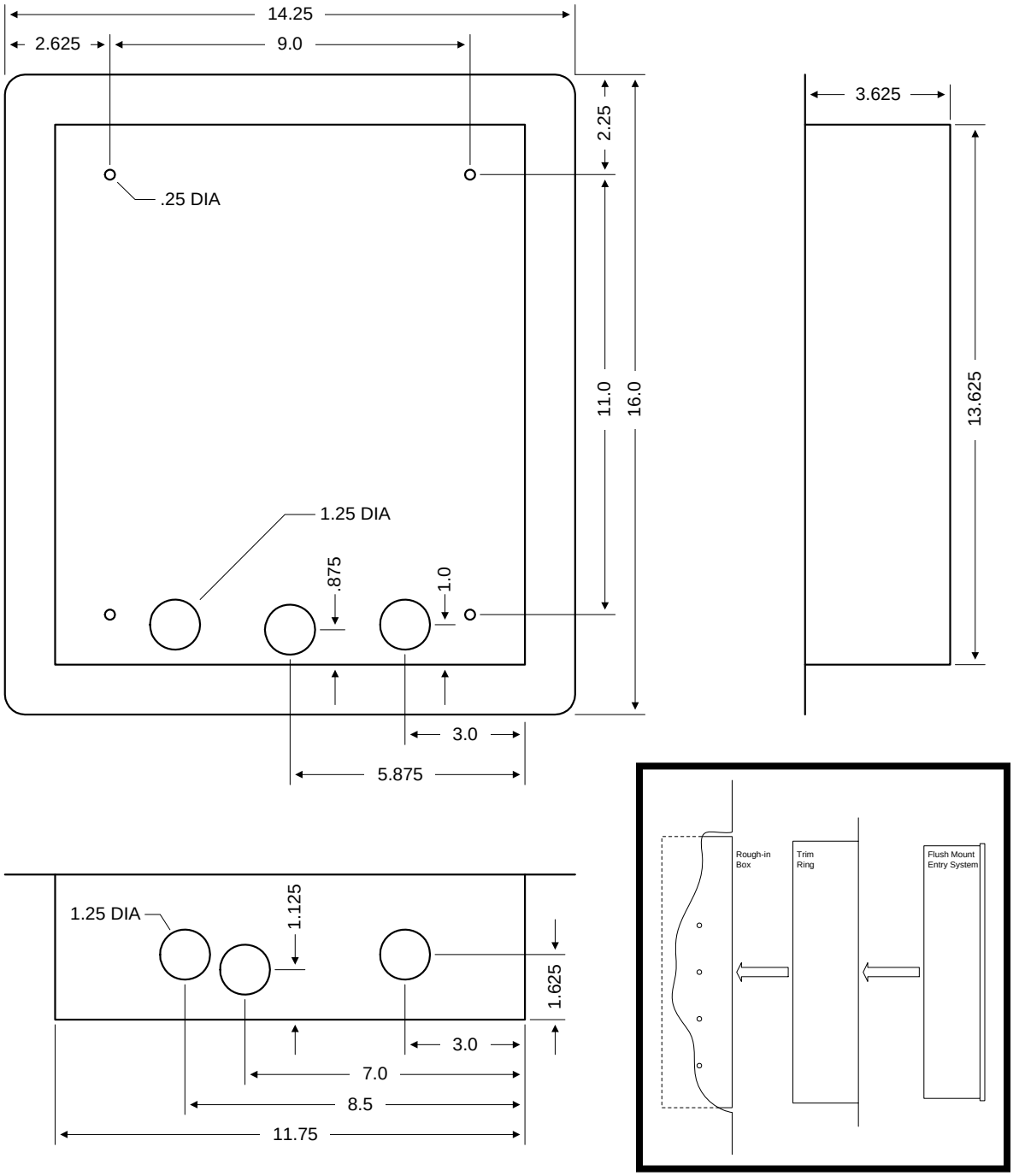
The flush mount installation kit has two parts; the rough-in box and the trim ring. The rough-in box is installed first.



1.1.5 Flush Mount Trim Ring

Flush mount units can be mounted by using the 1814-065 (stainless) or 1814-066 (gold) mounting kit. Flush mounting kits are not included with the unit. Flush mount units are not designed for direct exposure to the weather. Be sure the unit is mounted securely and is not subject to vibration from closing doors or gates.

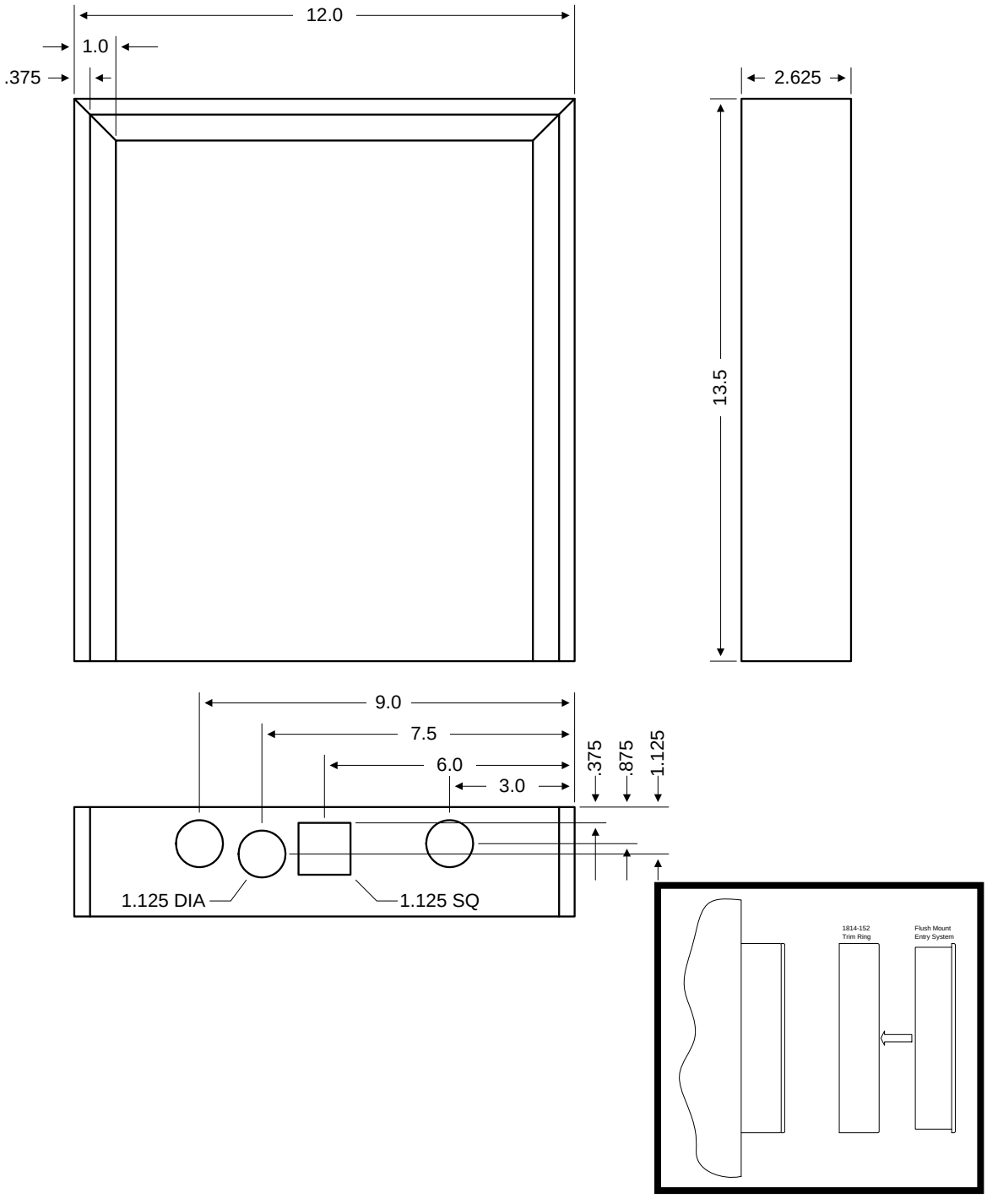
WARNING! If this entry system is used to control a vehicular gate with an automatic gate operator, the entry system must be mounted a minimum of ten (10) feet away from the gate and gate operator, or in such a way that a person cannot operate the entry system and touch the gate or gate operator at the same time.



1.1.6 Flush Mount Surface Mounting Kit

Flush mount units can be surface mounted by using the optional 1814-152 surface mount trim ring. Flush mount units are not designed for direct exposure to the weather. Be sure that the unit is securely mounted and is not subject to vibration from closing doors or gates.

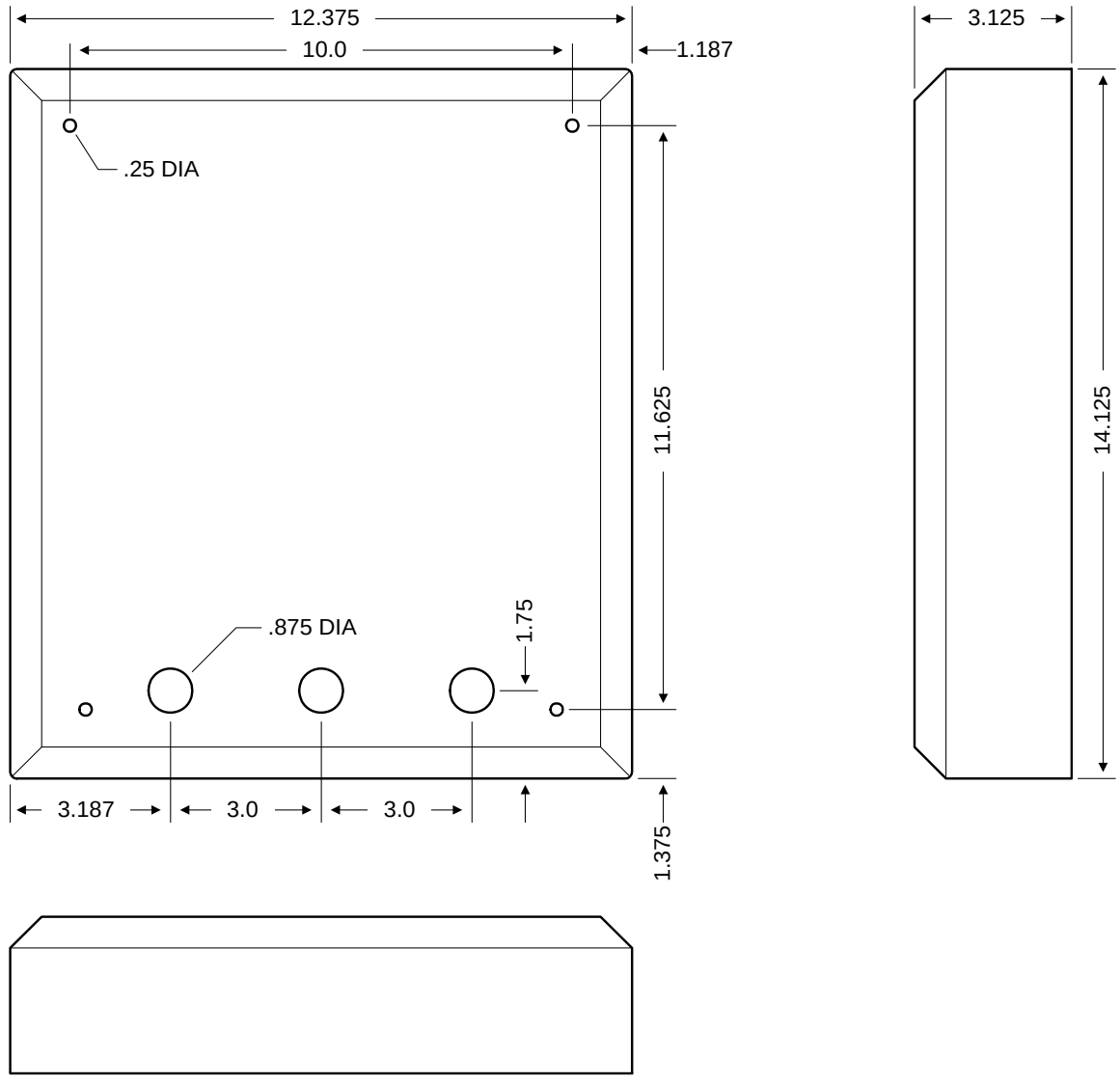
WARNING! If this entry system is used to control a vehicular gate with an automatic gate operator, the entry system must be mounted a minimum of ten (10) feet away from the gate and gate operator, or in such a way that a person cannot operate the entry system and touch the gate or gate operator at the same time.



1.1.7 Wall Mount Units

Wall mount units (models 1815 and 1817 only) are designed to be mounted directly onto a wall without the need of cutting a large hole as is necessary with flush mount units. Wall mount units are not designed for direct exposure to the weather. Be sure the unit is mounted securely and is not subject to vibration from closing doors or gates.

WARNING! If this entry system is used to control a vehicular gate with an automatic gate operator, the entry system must be mounted a minimum of ten (10) feet away from the gate and gate operator, or in such a way that a person cannot operate the entry system and touch the gate or gate operator at the same time.



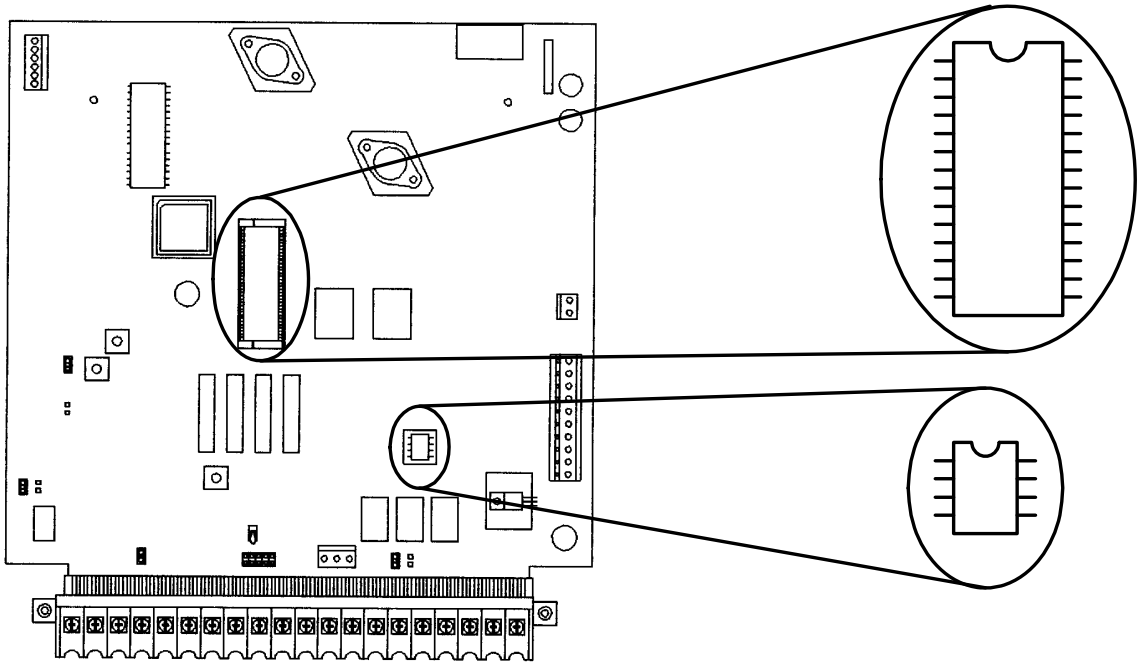
1.2 MEMORY CHIP INSTALLATION

The telephone entry system is shipped with two memory chips packaged in a separate box inside the shipping container. The memory chips must be installed for the telephone entry system to operate.

CAUTION!! Do not install the memory chips with power to the telephone entry system turned on. Attempting to install the memory chips with power on will irrevocably damage the chips.

CAUTION!! The memory chips are a static sensitive component. Discharge any static electricity from your hands by touching a proper ground device before removing the control board. Handle the memory chips with care.

1. The large memory chip socket is colored black and is located in the center of the circuit board. Be sure that the handle is in the un-locked position (pointing up). Be sure that power to the telephone entry system is off.
2. Carefully insert the memory chip into the socket. The small half circular indentation on the chip must be at the top. CAUTION: Installing the memory chip upside down will cause permanent damage to the chip. Be sure that the memory chip is seated correctly in the socket.
3. Move the lever on the chip socket to the locked position (down).
4. Install the small memory chip in the socket located at the bottom of the circuit board. The small circular indentation on the chip must be at the top. CAUTION: Installing the memory chip upside down will cause permanent damage to the chip. Be sure that the memory chip is seated correctly in the socket. If it is necessary to remove this chip, use a small bladed flat blade screwdriver to carefully pry the chip from the socket. Take extra caution to be sure to not bend the pins on the chip.



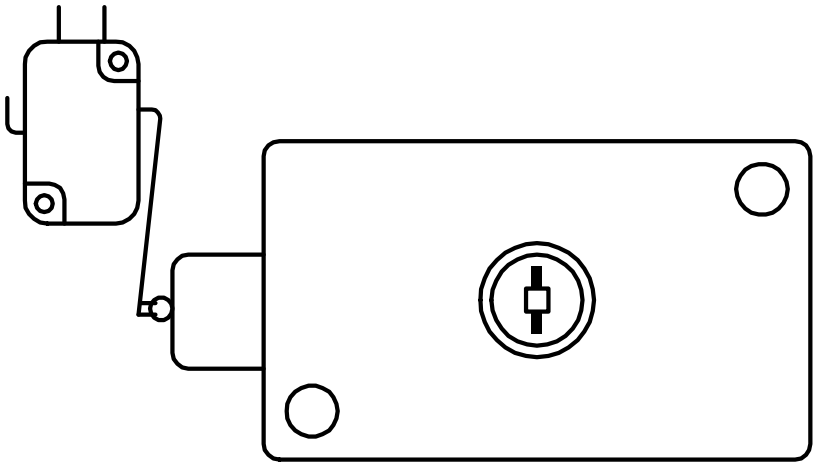
1.3 POSTAL LOCK INSTALLATION

At some locations, such as gated communities, it will be necessary to provide access to the mail carrier so that they can deliver the mail. Mail carrier access will be provided by the installation of an Arrow Postal Lock. This is the same lock that the Post Office uses for gang mailboxes. These locks are not available to the public. The installer or the building owner/manager will have to call the Post Office and arrange for the installation of this lock into the telephone entry system. All DoorKing commercial telephone entry systems are designed to accept installation of the postal lock.

Prior to installation of the postal lock, be sure power to the telephone entry system is turned off.

1. Remove the hole plug on the faceplate of the telephone entry system.
2. Cut the wire tie wrapped around the micro switch next to the postal lock access hole.
3. Remove the two hex nuts from the postal lock-mounting studs. Mount the postal lock on the two studs and secure with the hex nuts.

When the lock is installed, check to be sure that the pawl of the lock, in its extended position, is depressing the micro switch (the micro switch is wired normally closed). When the mail carrier inserts his key and turns the postal lock, the pawl is withdrawn and the micro switch will activate the relay that has been programmed for this function for the programmed strike time.



SECTION 2 – WIRING

Prior to installing wiring to the telephone entry system, we suggest that you become familiar with the instructions, illustrations, and wiring guidelines in this manual. This will help insure that you installation is performed in an efficient and professional manner.

The wiring of the telephone entry panel is an extremely important and integral part of the overall access control system. Use proper wire for the communication line, power wires, and be sure that the system is properly grounded. Check all local building ordinances and building codes prior to installing this system. Be sure your installation is in compliance with local codes.

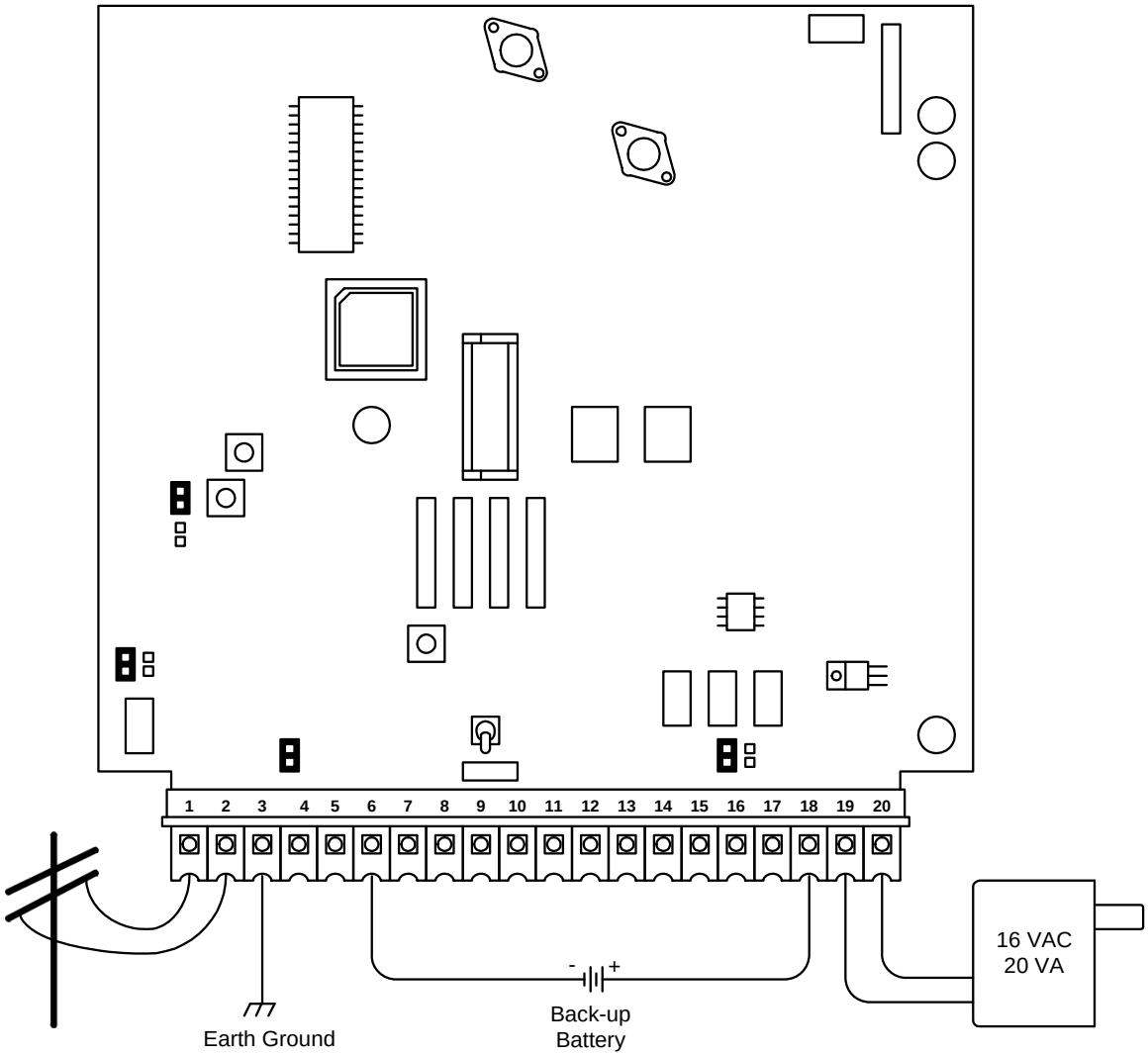
If this telephone entry system is used to control a vehicular gate with an automatic gate operator, the telephone entry system must be mounted a minimum of ten (10) feet away from the gate and gate operator. If this unit has been installed closer to the automated vehicular gate, do not proceed with any wiring until the unit has been moved and re-installed so that it is in compliance with these instructions.

Use only the supplied transformer (or U.L. listed equivalent) to power the telephone entry system (16.5 VAC, 20 VA). Do not power any other devices (electric strikes, magnetic locks, etc.) from the power transformer. For wire runs up to 100 feet, use 18 AWG, 600 volt insulated wire. For wire runs up to 200 feet, use 16 AWG, 600 volt insulated wire. Power wires are susceptible to noise and hum pickup; therefore it is preferable that you keep power wire runs as short as possible.

This telephone entry system contains a number of static sensitive components that can be damaged or destroyed by static discharges during installation or use. Discharge any static prior to removing the circuit board from the lobby panel by touching a proper ground device.

Proper grounding of this system is a requirement. The use of surge suppressers can significantly reduce the chance of component failure because of static charges or surges. To be effective, ground connections should be made with a minimum 12 AWG, 600 volt insulated wire to a ground point within 10 feet of the telephone entry system. The ground point must be at an electrical panel, a metallic cold water pipe that runs in the earth, or a stainless steel grounding rod driven at least ten (10) feet into the soil.

Be sure that you use proper wire that has an insulation rated for an underground environment. All wires should be placed in conduits. Proper pre-planning can greatly ease the installation and wiring of this system. Always check with the local building code to determine the type of wire required in your municipality.



Phone Wiring Maximum Distance	
800 Feet	24 AWG
1600 Feet	22 AWG

Power Wiring Maximum Distance	
100 Feet	18AWG
200 Feet	16 AWG

2.1 MAIN TERMINAL DESCRIPTION

TERMINAL	DESCRIPTION
1	Phone Line Connection – 800 ft. maximum with 24 AWG wire; 1600 ft. maximum with 22 AWG wire.
2	Phone Line Connection – 800 ft. maximum with 24 AWG wire; 1600 ft. maximum with 22 AWG wire.
3	Earth Ground Only.
4	Switch Input. A closure between terminals 4 and 6 will cause the designated relay(s) to activate for the programmed strike time. The Postal Switch is connected here.
5	Microphone Input.
6	Common for switch input, microphone, speaker, AZ buttons, keyboard and battery negative.
7	Speaker Output.
8	Keyboard Data Input.
9	Keyboard 5 VDC Power.
10	Keyboard Clock Input.
11	Z Button Input.
12	A Button Input.
13	Relay 2 Common – 30 Volt, 3 Amp maximum.
14	Relay 2 Contact (set for normally open or normally closed by the relay contact shorting bar on the circuit board) – 30 Volt, 3 Amp maximum.
15	Relay 1 Common – 30 Volt, 3 Amp maximum.
16	Relay 1 Normally Closed – 30 Volt, 3 Amp maximum.
17	Relay 1 Normally Open – 30 Volt, 3 Amp maximum.
18	Back-up Battery POSITIVE (connect negative to terminal 6).
19	16 VAC Input Power – 20 VA minimum. 100 ft. maximum with 18 AWG wire; 200 ft. maximum with 16 AWG wire.
20	16 VAC Input Power – 20 VA minimum. 100 ft. maximum with 18 AWG wire; 200 ft. maximum with 16 AWG wire.

Do not run high voltage (115 V) power lines and communication lines in the same conduit. These should be in separate conduits at least six (6) inches apart. **Be sure that all phone line wiring is twisted and completely isolated from ground**.

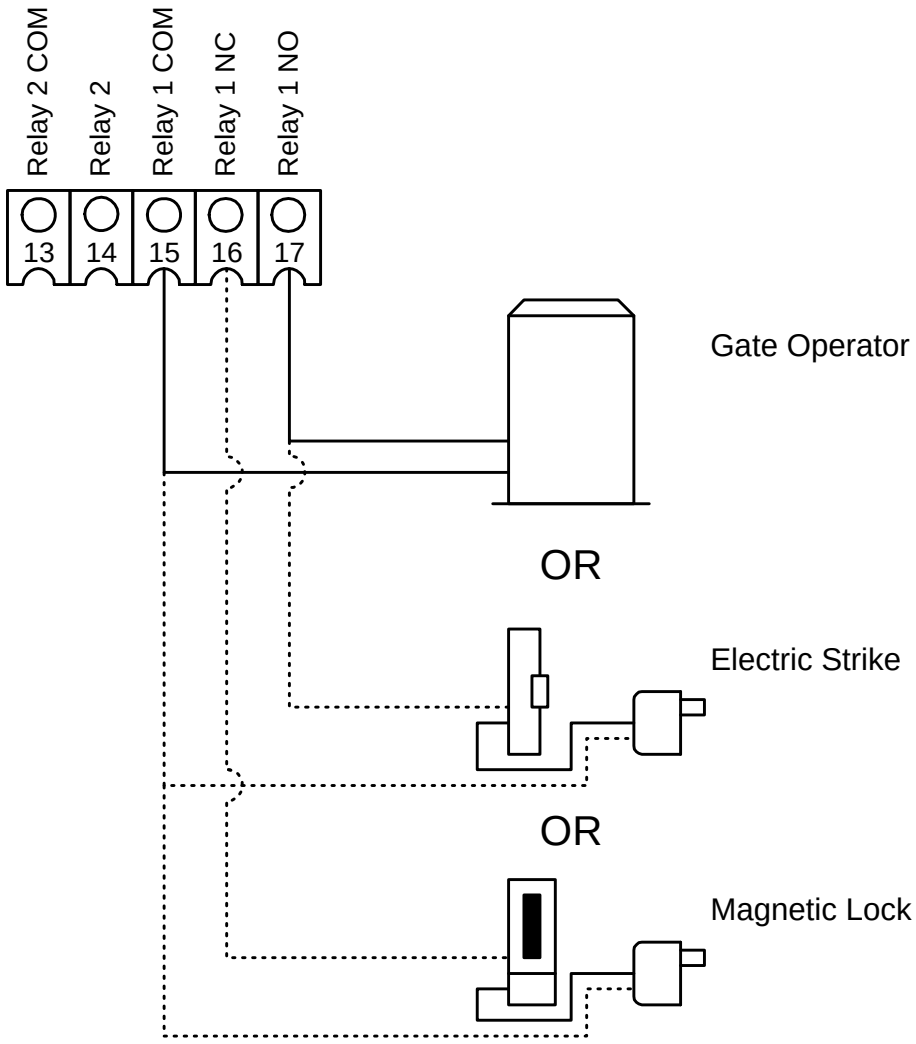
Use only the supplied 16.5 VAC (or U.L. listed equivalent) to power the entry system. **Do not power any other devices (electric strikes, magnetic locks, lights, etc.) from this transformer**. Do not run 16 VAC entry system power lines over 200 feet. It is advisable to keep these wires as short as possible. **Use 18 AWG wire for wire runs up to 100 feet, and 16 AWG wire for wire runs up to 200 feet**. Install a low voltage surge suppresser (DoorKing p/n 1878-010 or equivalent) to help protect the entry system from power surges. Relay 1 contacts are located on the main terminal strip (15, 16, 17). Relay 2 contacts are located on the main terminal strip (13, 14) and are set for N.O or N.C. operation by the relay 2 shorting bar.

A 12 volt .8 amp hour gel-cell battery (DoorKing p/n 1801-008) can be installed in the system to provide stand-by power in the event of a power outage. Connect the positive (RED) lead to terminal 18; connect the negative (BLACK) lead to terminal 6.

2.2 RELAY WIRING (TYPICAL)

2.2.1 Controlling a Single Door or Gate

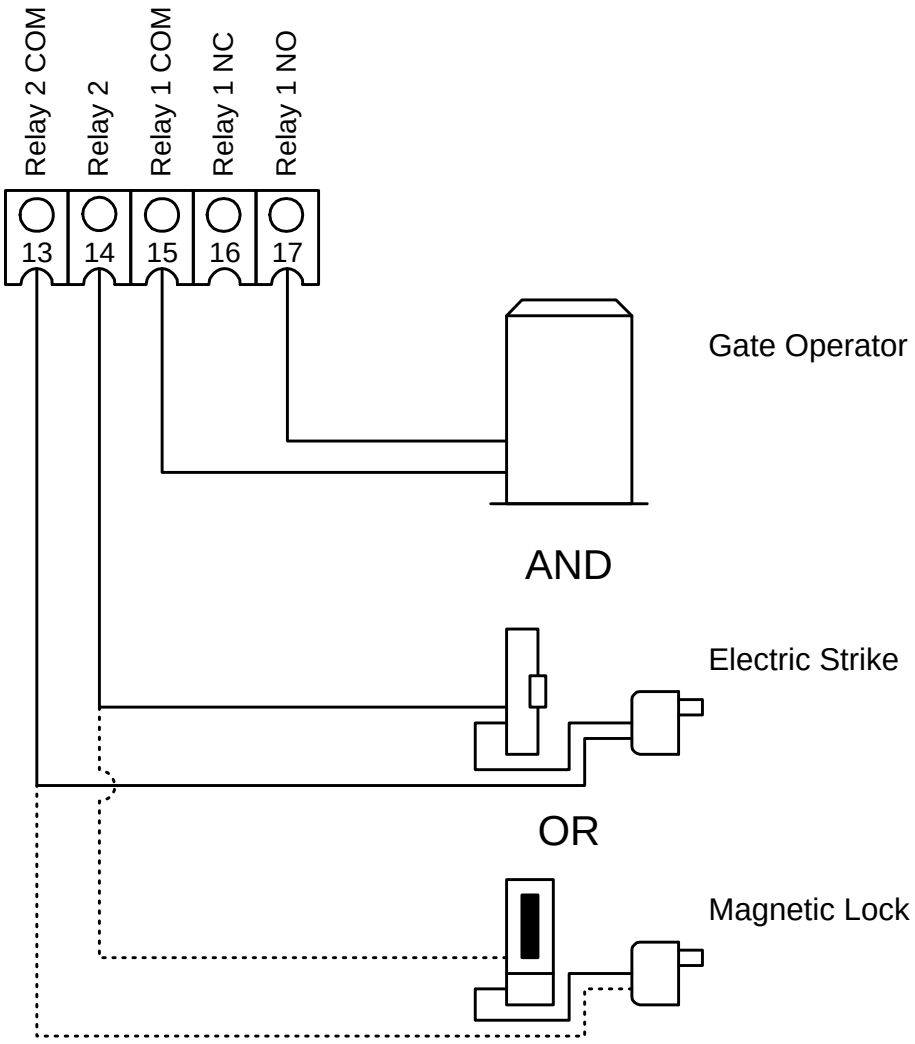
Relay 1 is typically used when the system will control a single door or vehicular gate operator. Note that the electric strike and magnetic lock are each powered by their own power supply. Electric strikes are connected through the normally open (NO) contact and magnetic locks are connected through the normally closed (NC) contact.



2.2.2 Controlling a Gate Operator and Pedestrian Gate (or Door)

When controlling a gate operator and pedestrian gate (or door), relay 1 is typically used to control the gate operator while relay 2 is typically used to control the door or gate. Note that the electric strike and the magnetic lock are powered from their own power supply. The relay 2 contact is set to either normally open (NO) for electric strikes, or normally closed (NC) for magnetic locks by placing the relay 2 contact shorting bar on either the NO or NC pins.

A variation of this diagram is for the system to control two doors or two gates.



SECTION 3 – PROGRAMMING

The DoorKing 1814 Telephone Entry System can be programmed from the front keypad on the entry system, remotely from an off premise location using a touch tone telephone, or by using an IBM compatible AT keyboard. The master code can only be programmed from the front keypad.

3.1 PROGRAMMING INFORMATION

3.1.1 Programming from the Keypad

Follow the programming instructions as described in each section of this manual. The system will prompt you with short tones (beep) when programming steps have been followed correctly, and with a long tone (beeeeeep) when the programming step is ended. The display will also assist you in viewing the information that you are programming. It is highly recommended that you complete the resident listing in the appendix prior to starting any programming from the keypad. This listing will provide you with the information needed to complete the manual programming sequence.

This symbol _ in the programming steps indicates numbers that you will need to enter, one number per symbol. When programming from the keypad, after each programming step is performed correctly, a short tone (beep) will be heard. When the programming session is ended, a long tone (beeeeeep) will be heard.

3.1.2 Programming with an IBM Keyboard

The 5-pin keyboard connector is located on the bottom of surface mount units, and inside the faceplate of the flush and wall mount units.

1. Insert the 5-pin keyboard connector into the matching connector in the telephone entry system.
2. Follow the instructions as described in each section with the following exceptions:

   Use the ENTER key on the keyboard in place of the * key.
   Use the ESC key on the keyboard in place of the # key.
   Use the END key on the keyboard in place of 0# together input.

NOTE: When programming resident names from the keyboard, it is not necessary to press the ENTER key after each letter as indicated in the programming instructions. Type the entire name and then press the ENTER key.

3.1.3 Programming with a Touch-Tone Telephone

Programming from a touch-tone telephone should only be attempted after you are familiar with the programming steps in this manual. NOTE: Resident names and the scrolling messages cannot be programmed by this method.

1. Call the telephone number that the entry system is installed on from a touch-tone telephone. The system will answer after the second ring and respond with a one second tone (beep).
2. Follow the programming instructions as described in each section of this manual.
3. When completed with a programming step, simply hang-up. You cannot press the *# together from a touch-tone telephone.

3.2 GENERAL PROGRAMMING

3.2.1 Master Code

This programming step sets the system MASTER CODE. The master code is the four-digit number required to gain access to the system memory. You need to know the master code prior to programming the system with the PC, or to perform any of the programming functions on the following pages.

NOTE: The master code cannot be programmed from an off-site location. The master code can only be programmed from the system keypad.

Factory setting = 9999

1. Open the cabinet of the telephone entry system and turn the master code switch (the small toggle switch) on.
2. Enter a four-digit master code _ _ _ _ then press * (beep).
3. Turn the master code switch off and close the cabinet.

3.2.2 Single or Multiple Systems

This program sequence sets the telephone entry system to operate as a single unit on the phone line, or to share the phone line with other units. If multiple systems are sharing the same phone line, then each one must be set as a "multiple system" and each must have a unique master code.

Factory setting = Single System.

1. Press * 0 4 and then enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Enter 0 * (beep) for a single system or 1 * (beep) for multiple systems.
3. Press 0# TOGETHER to end this programming step (beeeeeep).

3.2.3 Programming for Call-up Operation

This feature is only used when the telephone entry system is interfaced with a DoorKing 1816 Telephone Intercom system under certain special applications. The factory setting for this feature is OFF. Do not change this feature to ON. Refer to the 1816 Installation Manual, and check with your DoorKing representative on the special applications that this feature is used for.

Factory Setting = OFF

1. Press * 7 8 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Enter 0 * (beep) to turn the call up feature OFF.
   Enter 1 * (beep) to turn call up ON.
3. Press 0# TOGETHER to end this programming step (beeeeeep).

3.2.4 Relay Strike Time

These steps will program Relay 1 and Relay 2 strike times. Strike times can be programmed from 1/4 second (enter 00 in step 4) up to 99 seconds by entering the desired time in seconds.

Factory setting for relay strike times are: Relay 1 = 01, Relay 2 = 01.

1. Press * 0 3 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Press 1 * to set relay 1, **or** 2 * to set relay 2 strike time.
3. Enter the two-digit strike time _ _ (00-99) then press * (beep).
4. Repeat steps 2 and 3 to set the other relay strike time.
5. Press 0# TOGETHER to end this programming step (beeeeeep).

3.2.5 Talk Time

This programming sequence sets the maximum time allowed for conversation when the entry system places a call to the resident. The talk time can be set from 1 second up to 255 seconds (4 minutes, 15 seconds) and is entered as a three-digit number. For example, to set a talk time of 20 seconds, enter 020 in step 3. The talk time set here does not affect the telephone numbers that are programmed under directory codes 0, 00, 000, 0000 and 1, 01, 001, 0001. The talk time for these two directory codes are factory set to the maximum. Phone numbers programmed under these directory codes should be reserved for management or emergency phone numbers that generally require longer conversations.

Factory setting for talk time = 60 seconds.

1. Press * 0 8 and enter the four digit MASTER CODE _ _ _ _ (beep).
2. Enter three digits for talk time (seconds) _ _ _ (001-255) then press * (beep).
3. Press 0# TOGETHER to end this programming step (beeeeeep).

3.2.6 Tone Open Numbers

These steps will program the tone open numbers for relays 1 and 2. You will need to enter a four-digit number (see chart below) to set the relay functions. If a function is not desired, enter # in place of a number. For example, if you want the relay to have a momentary activation function only, and you want the relay to activate when the number 9 is pressed, enter 9 # # # in step 3. Do not duplicate tone open numbers, i.e., don't set both relay 1 and 2 tone-open numbers to 9.

Factory setting is: Relay 1 = 9876, Relay 2 = 5432.

1. Press * 0 5 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Press 1 * (beep) to set relay 1 **or** 2 * (beep) to set relay 2 tone numbers.
3. Enter the four-digit tone open number code _ _ _ _ then press * (beep).
4. Repeat steps 2 and 3 to set the other relay tone open numbers.
5. Press 0# TOGETHER to end this programming step (beeeeeep).

DIGIT	FUNCTION
1st	Momentary activation. Relay will activate for the programmed strike time (3.3.1).
2nd	Relay hold. Relay will activate and remain activated until commanded to release.
3rd	Relay release. Deactivates the relay hold command.
4th	Relay hold 1-hour. Relay will activate for 1-hour and then will automatically deactivate itself.

3.2.7 Postal Switch

This programming sequence sets that relay(s) will activate when the postal switch input is activated on the telephone entry system. The system can be programmed so that only one relay will activate, or any combination of relays will activate.

Although there are only two relays to set, you will enter a three-digit number in this step. **The first digit will always be 0**. To cause a relay to activate, enter a 1 in it's respective character slot, or enter a zero to not activate the relay. For example, entering 010 in step 3 will cause only relay 1 to activate. Entering 011 will cause both relay 1 and relay 2 to activate.

Factory setting = 010.

1. Press * 5 0 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Enter the three-digit (1's or 0's only) postal relay code 0 _ _ then press * (beep).
3. Press 0# TOGETHER to end this programming step (beeeeeep).

3.2.8 Touch-tone / Rotary-dial

This programming sequence will set the telephone entry system to dial out in either a touch-tone or rotary format. Generally, this will be set for touch-tone.

Factory setting = touch-tone.

1. Press * 0 7 and enter the four digit MASTER CODE _ _ _ _ (beep).
2. Enter 0 * (beep) for touch-tone **or** enter 1 * (beep) for rotary.
3. Press 0# TOGETHER to end this programming step (beeeeeep).

3.2.9 Rotary-dial 9

This programming sequence sets which relay(s) will activate when the system receives a rotary-dial 9 open command from a residents rotary telephone. The system can be programmed so that only one relay will activate, or any combination of relays will activate.

Although there are only two relays to set, you will enter a three-digit number in this step. The first digit will always be 0. To cause a relay to activate, enter a 1 in it's respective character slot, or enter a 0 to not activate the relay. For example, entering 010 in step 3 will cause only relay 1 to activate. Entering 011 will cause both relay 1 and relay 2 to activate.

Factory setting = 010.

1. Press * 5 1 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Enter the three-digit (1's or 0's only) rotary 9 code 0 _ _ then press * (beep).
3. Press 0# TOGETHER to end this programming step (beeeeeep).

3.3 PROGRAMMING LETTERS, NUMBERS and MESSAGES

The keypad on the 1814 system has all the letters of the alphabet, the numbers 0 through 9, and a space key printed on it. This allows the keypad to be used to program all names and numbers into the systems electronic directory.

NOTE: Names should not be programmed from a remote location using a touch-tone telephone.

3.3.1 Programming Letters and Numbers

When entering names into the electronic directory using the system keypad or a touch-tone telephone, pressing the key once will display the first letter listed on the button, pressing twice will display the second letter, pressing it a third time will display the third letter, and pressing it a fourth time will display the number (or fourth letter).

Example using the number 6 key:

Press one time to display the letter M
Press two times to display the letter N
Press three times to display the letter O
Press four times to display the number 6

The chart below provides the sequence required to enter each letter and number from the keypad into the system memory. A sequence is also provided to add a space, clear the display if a mistake is made, and a sequence to skip a name if there is a desire not to provide a name with a phone number.

To Display	Press	To Display	Press	To Display	Press
A	2*	N	66*	0	0*
B	22*	O	666*	1	11*
C	222*	P	7*	2	2222*
D	3*	Q	77*	3	3333*
E	33*	R	777*	4	4444*
F	333*	S	7777*	5	5555*
G	4*	T	8*	6	6666*
H	44*	U	88*	7	77777*
I	444*	V	888*	8	8888*
J	5*	W	9*	9	99999*
K	55*	X	99*	SPACE	1*
L	555*	Y	999*	CLEAR	#
M	6*	Z	9999*	SKIP NAME	*#

3.3.2 Programming the User Message

The user message, followed by the instruction message, scrolls across the screen from right to left when the system is not in use. Both the user and instruction message can be programmed to display your own message. The user message can be a maximum of 48 characters (spaces count as a character) and is entered into the system memory in three blocks. The first two blocks contain 20 characters while the third block contains 8 characters. The example below shows how the sample message was divided into three blocks. Use the blank matrix to organize your own message. Only upper case letters, numbers and spaces can be programmed from the system keypad.

Factory Default User Message = This Space is For Your User Programmable Message

Example	THANK YOU FOR VISITING OAKWOOD CONDOMINIUMS																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Block 1	T	H	A	N	K		Y	O	U		F	O	R		V	I	S	I	T	I
Block 2	N	G		O	A	K	W	O	O	D		C	O	N	D	O	M	I	N	I
Block 3	U	M	S																	

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Block 1																				
Block 2																				
Block 3																				

After organizing the user message in the matrix above, follow the instructions below to enter the message into the system. After each desired letter, number or space is displayed on the directory, remember to press * to enter that character. Spaces count as a character and must be entered into memory as a character. After a complete block has been entered, press * to enter the block, then start the next block.

1. Press * 8 0 and enter the four-digit MASTER CODE _ _ _ _ (beep). The screen will display: **BLOCK 1**.
2. Enter the characters into block 1. Remember to press * (beep) after each character.
3. After the last character in block 1 has been entered, press * (beep) to enter the entire block. The screen will display: **BLOCK 2**.
4. Enter the characters into block 2. Remember to press * (beep) after each character.
5. After the last character in block 2 has been entered, press * (beep) to enter the entire block. The screen will display: **BLOCK 3**.
6. Enter the characters into block 3. Remember to press * (beep) after each character.
7. After the last character in block 3 has been entered, press * (beep) to enter the entire block.
8. Press * to enter all three blocks into the system memory.
9. Press 0# together to end this programming step (beeeeeep).
10. The new user message will begin to scroll across the screen.

3.3.3 Programming the Instruction Message

The instruction message scrolls across the screen from right to left when the system is not in use and follows the user message programmed in 3.3.2. The instruction message can be a maximum of 52 characters (spaces count as a character) and is entered into the system memory in three blocks. The first two blocks contain 20 characters while the third block contains 12 characters. The example below shows how the sample instruction message was divided into three blocks and programmed into the system. Use the blank matrix to organize your own message. Only upper case letters, numbers and spaces can be programmed from the system keypad.

Factory Default Instruction Message: Push A-Z To Find Name Or No. Enter Code Or Push Call

Example	PUSH A OR Z BUTTON TO FIND NAME ENTER CODE OR PUSH CALL																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Block 1	P	U	S	H		A		O	R		Z		T	O		F	I	N	D	
Block 2	N	A	M	E		E	N	T	E	R		C	O	D	E		O	R		P
Block 3	U	S	H		C	A	L	L												

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Block 1																				
Block 2																				
Block 3																				

After organizing the instruction message in the matrix above, follow the instructions below to enter the message into the system. After each desired letter, number or space is displayed on the directory, remember to press * to enter that character. Spaces count as a character and must be entered into memory as a character. After a complete block has been entered, press * to enter the block, then start the next block.

1. Press * 8 1 and enter the four-digit MASTER CODE _ _ _ _ (beep). The screen will display: **BLOCK 1**.
2. Enter the characters into block 1. Remember to press * (beep) after each character.
3. After the last character in block 1 has been entered, press * (beep) to enter the entire block. The screen will display: **BLOCK 2**.
4. Enter the characters into block 2. Remember to press * (beep) after each character.
5. After the last character in block 2 has been entered, press * (beep) to enter the entire block. The screen will display: **BLOCK 3**.
6. Enter the characters into block 3. Remember to press * (beep) after each character.
7. After the last character in block 3 has been entered, press * (beep) to enter the entire block.
8. Press * to enter all three blocks into the system memory.
9. Press 0# together to end this programming step (beeeeeep).
10. The new user message will begin to scroll across the screen

3.4 Programming Phone Numbers and Names

Before beginning manual programming of this telephone entry system from the keypad, it is strongly recommended that the resident log sheets in the back of this manual be competed in their entirety. This will make programming easier and can be used as a reference when entering phone numbers, names, entry codes and device numbers.

This section of the manual will instruct you on how to enter phone numbers and names into the system memory from the keypad on the telephone entry system. Prior to entering any information, you will set the directory code digits to the desired length. Changing the directory code length after programming is complete will delete all programmed phone numbers, area codes, and names and will require you to re-enter this information.

If you are in an area that requires 10 digit dialing, you will need to program the area code(s) required as described in 3.4.3, and then program the resident phone numbers as described in 3.4.4. If 10-digit dialing is not required, simply enter the 7-digit phone number as described in 3.4.2.

When you are entering names into the electronic directory, remember to press * after each desired letter, number, or space is displayed on the LCD. When the entire name is displayed on the directory, press * again to enter the entire name into the directory. If you make a mistake, simply press # to clear the display and start over. Names cannot be more than 15 characters in length - spaces count as a character.

The example below shows the keypad sequence to enter **JONES APT 1** into the directory.

To Enter: **JONES APT 1**		
J	5 *	Press the 5 key one time to display J, then press the * key to enter.
O	6 6 6 *	Press the 6 key three times to display O, then press the * key to enter.
N	6 6 *	Press the 6 key twice to display N, then press the * key to enter.
E	3 3 *	Press the 3 key three times to display E, then press the * key to enter.
S	7 7 7 7 *	Press the 7 key four times to display S, then press the * key to enter.
	1 *	Press the 1 key one time for a space, then press the * key to enter.
A	2 *	Press the 2 key once to display A, then press the * key to enter.
P	7 *	Press the 7 key once to display P, then press the * key to enter.
T	8 *	Press the 8 key one time to display T, then press the * key to enter.
	1 *	Press the 1 key one time for a space, then press the * key to enter.
1	1 1 *	Press the 1 key twice to display 1, then press the * key to enter.
	*	Press the * key to enter the entire name.

3.4.1 Programming the Directory Code Length

This programming sequence sets the directory code length to 1 - 2 - 3 or 4 digits. If 11 or more resident names or telephone numbers are going to be programmed into the system, the directory code must be at least two-digits. If 101 or more resident names or telephone numbers are going to be programmed, the directory code must be at least three-digits. If 1001 or more resident names or telephone numbers are going to be programmed, the directory code must be set to four-digits.

Factory setting is three (3) digits.

CAUTION: This programming sequence will delete all phone numbers and directory codes that have been previously programmed into the system.

1. Press * 2 0 and enter the four-digit MASTER CODE _ _ _ _ (beep). The display shows **9999*.**
2. This step is designed to be a check for what you are about to do. Basically, the system is asking you: "Are you sure you want to do this?" If you want to proceed, enter 9 9 9 9 * (beep) then proceed to step 3. To cancel the command, press 0# together (beeeeeep).
3. Enter the directory code digit length (1-2-3-4) _ then press * (beep). This programming sequence will automatically end itself. This will be indicated by a long tone (beeeeeep).

3.4.2 Programming 7-digit Phone Numbers

In this programming sequence, the directory codes and 7-digit phone numbers will be programmed into the system. Be sure you have programmed the directory code length that you desire as described in 3.4.1. **Changing the directory code length after programming the telephone numbers will erase all the numbers and directory codes that have been programmed**. To program phone numbers that will be referenced to an area code (long distance calls and 10 digit calling), follow the instructions under Long Distance Phone Number Programming on the next page. If you use directory codes 0, 00, 000, 0000 and/or 1, 01, 001, 0001 remember that the talk time for these directory codes are factory set to the maximum and cannot be changed. Use these directory codes to program management or emergency phone numbers, which generally require longer conversation periods.

NOTE: If this telephone entry system is being used in an area that requires 10-digit dialing, proceed to 3.4.3 and 3.4.4 to program the area code and phone number.

1. Press * 0 1 and enter the four-digit MASTER CODE _ _ _ _ (beep). The display will show **CO**.
2. Enter the directory code (1, 2, 3 or 4 digits depending on what was programmed in 3.4.1) The display will show **PHONE#.**
3. Enter the seven-digit phone number _ _ _ _ _ _ _ then press * (beep). If the number that you are entering in this step is less than seven-digits, enter # in the empty spaces. For example, if the system is connected to a PBX that requires four-digit extension numbers and you want to enter extension 2217, you would enter this number as 2 2 1 7 # # # then press * (beep).
4. Repeat steps 2 and 3 to enter additional directory codes and phone numbers.
5. Press 0# TOGETHER to end this programming step (beeeeeep).

3.4.3 Programming Area Codes

Up to 10 different area codes can be programmed for any 10-digit or long distance calling requirements and will be referenced 0 through 9 (for a total of 10). The area codes will be entered as a four-digit number (1 + the three digit area code). If area codes are being programmed to facilitate 10-digit calling requirements, precede the three-digit area code with #.

1. Press * 2 4 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Enter the area code reference number (0 through 9) _ then press * (beep).
3. Enter the area code _ _ _ _ then press * (beep). NOTE-1: for long distance calling requirements, enter 1 and the three-digit area code. NOTE-2: for 10-digit calling requirements, enter # and the three-digit area code.
4. Repeat steps 2 and 3 to enter additional area codes. Remember to use a different area code reference number when entering more area codes.
5. Press 0# TOGETHER to end this programming step (beeeeeep).

3.4.4 Programming Phone Numbers with Area Code Reference

In this section, phone numbers that are referenced to an area code (long distance and 10-digit dialing calls) will be programmed. Be sure that the area code(s) have been programmed as described in the preceding section.

NOTE: If long distance or 10-digit dialing is not required, program the seven digit telephone numbers as described in 3.4.2.

1. Press * 4 1 and enter the four-digit MASTER CODE _ _ _ _ (beep). The display will show **CO**.
2. Enter the directory code (1, 2, 3 or 4 digits depending on what was programmed in 3.4.1) then press * (beep). The display will show **PHONE#.**
3. Enter the area code reference number (0 through 9) _ then press * (beep).
4. Enter the seven-digit phone number _ _ _ _ _ _ _ then press * (beep). If the number that you are entering in this step is less than seven-digits, enter # in the empty spaces. See 3.4.2, step 3.
5. Repeat steps 2, 3, and 4 to enter additional long distance phone numbers.
6. Press 0# TOGETHER to end this programming step (beeeeeep).

3.4.5 Programming Names

In this section, names will be programmed into the system. Names are referenced to a phone number by entering the directory code that the persons phone number has been programmed to.

1. Press * 6 6 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Enter the directory code (1, 2, 3 or 4 digits depending on what was programmed in 3.4.1) then press * (beep).
3. Begin entering the residents name one character at a time as described on page 30. When the desired character (letter, number or space) is displayed, press * to enter that character.
4. Repeat step 4 to enter additional characters until the desired name is displayed in the directory. NOTE 1: 15 characters maximum. NOTE 2: If you make a mistake in steps 4 or 5, press * to clear the display and start over.
5. After the last character has been entered, press * (beep) to enter the complete name. The display will be blank.
6. Repeat steps 2, 3, 4, and 5 to enter additional names.
7. Press 0# TOGETHER to end this programming step (beeeeeep).

3.4.6 Deleting Individual Phone Numbers

This programming sequence is used to delete a single phone number under a known directory code. Proceed to 3.4.7 to delete the resident name.

1. Press * 0 1 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Enter the directory code (1, 2, 3 or 4 digits depending on what was programmed in 3.4.1) then press * (beep).
3. Press # # # # # # # then press * (beep).
4. Repeat steps 2 and 3 to delete additional phone numbers.
5. Press 0# TOGETHER to end this programming step (beeeeeep).

3.4.7 Delete Names

This programming sequence is used to delete a resident name from the directory. These steps will not erase the resident telephone number from the system. Go to section 3.4.6 to delete the resident telephone number.

1. Press * 6 5 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Use the A and Z buttons to locate the name that is to be erased, then press * (beep).
3. Repeat step 2 to erase additional names.
4. Press 0# TOGETHER to end this programming step (beeeeeep).

3.4.8 Delete Area Codes

This program sequence deletes area code numbers that have been programmed into the system.

1. Press * 2 4 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Enter the area code reference number (0 through 9) _ then press * (beep).
3. Enter # # # # then press * (beep).
4. Repeat steps 2 and 3 to delete additional area codes.
5. Press 0# TOGETHER to end this programming step (beeeeeep).

3.4.9 Display Phone Numbers

Use this programming sequence to display phone numbers programmed under known directory codes, i.e. if you wanted to see what phone number was programmed under directory code 271. This programming sequence will not allow you to delete phone numbers.

1. Press * 0 6 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Enter the directory code (1, 2, 3 or 4 digits depending on what was programmed in 3.4.1) then press * (beep).
3. The phone number programmed under the directory code entered in step 3 will be displayed on the LCD. If **C C C C C C C** is displayed, this indicates that no phone number has been programmed under the entered directory code. If the first digit is flashing, this is the area code reference code and indicates that the number displayed is a long distance or 10-digit number.
4. To display additional phone numbers press * and repeat step 2.
5. Press 0# TOGETHER to end this programming step (beeeeeep).

3.5 FOUR-DIGIT ENTRY CODES

Four-digit entry codes are entered on the system keypad preceded by # to allow the resident access. Do not confuse four-digit entry codes with a five-digit device code entered from a weigand keypad.

3.5.1 Programming Four-digit Entry Codes

1. Press * 0 2 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Enter the directory code (1, 2, 3 or 4 digits depending on what was programmed in 3.4.1) then press * (beep).
3. Enter the four-digit entry code _ _ _ _ then press * (beep).
4. Repeat steps 2 and 3 to enter additional entry codes.
5. Press 0# TOGETHER to end this programming step (beeeeeep).

3.5.2 Delete Four-digit Entry Codes

1. Press * 0 2 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Enter the directory code (1, 2, 3 or 4 digits depending on what was programmed in 3.4.1) then press * (beep).
3. Press # # # # * (beep).
4. Repeat steps 2 and 3 to delete more entry codes.
5. Press 0# TOGETHER to end this programming step (beeeeeep).

3.5.3 View Four-digit Entry Codes

1. Press * 1 0 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Enter the directory code (1, 2, 3 or 4 digits depending on what was programmed in 3.4.1) then press * (beep).
3. The entry code programmed under the directory code entered in step 2 will be displayed.
4. Repeat step 2 to view additional entry codes.
5. Press 0# TOGETHER to end this programming step (beeeeeep).

3.5.4 Entry Code Divide Number

Entering a four digit divide number in this step will set which entry codes operate which relay. Entry codes up to and including the divide number programmed will activate relay 1. Entry codes higher than the divide number will activate relay 2.

1. Press * 1 2 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Enter the four-digit divide number _ _ _ _ then press * (beep).
3. Press 0# TOGETHER to end this programming step (beeeeeep).

SECTION 4 – ADJUSTMENTS

4.1 Speaker Volume

1. Open the front of the telephone entry system and locate the speaker volume adjustment.
2. Place a phone call from the telephone entry system to a resident. While they are talking, adjust the speaker volume potentiometer for adequate sound. To increase the volume rotate the potentiometer clockwise, to decrease the volume rotate the potentiometer counter clockwise.

4.2 Feedback

1. Open the front of the telephone entry system and locate the feedback adjustment.
2. Place a phone call from the telephone entry system to a resident. After they answer, ask the resident to remain silent.
3. While rubbing your finger across the microphone hole, rotate the feedback potentiometer clockwise, and then counter clockwise. When the noise from the speaker is minimum, this is the correct adjustment for the feedback potentiometer.

4.3 Click Sensitivity

1. Open the front of the telephone entry system and locate the click sensitivity adjustment.
2. Place a phone call from the telephone entry system to a resident with a rotary dial type phone. After they answer, ask the resident to dial 9 while you adjust the click sensitivity potentiometer (the resident may have to dial 9 several times for you to obtain the correct adjustment). When the door or gate opens, this is the correct adjustment for the click sensitivity.
3. NOTE: Adjusting the click sensitivity too high (potentiometer fully clockwise) could cause the system to respond to loud noises while it is in use. If this happens, rotate the click sensitivity potentiometer counter clockwise 1/8 turn and re-test the system. You may have to perform this step several times to find the correct adjustment.

4.4 Display Contrast

1. Open the front of the telephone entry system and locate the contrast adjustment.
2. Turn the contrast potentiometer clockwise and then counter clockwise until the display is satisfactory.

4.5 Master Code Switch

1. The master code switch is left in the off position for normal operation. Turn the master code switch on when setting the system master code. See programming instructions to set the system master code. If the master code switch is turned on and a new master code is not entered, the system will sound a long tone after approximately 30 seconds. This tone will continue every 30 seconds until a new master code is entered, or until the switch is turned off.

4.6 Ring Pin

1. The ring pin is labeled RING on the control board. This shorting pin must be installed to allow the system to answer any calls placed to it. If remote programming or remote relay operation is to be used, the shorting pin must be installed. Removing the shorting pin will cause the system to never answer any call placed to it.

4.7 Relay 2 Contact Pin

1. This shorting pin sets the contacts on relay number two to be set to either Normally Open (NO) or Normally Closed (NC). **The pin is set to NO from the factory**.

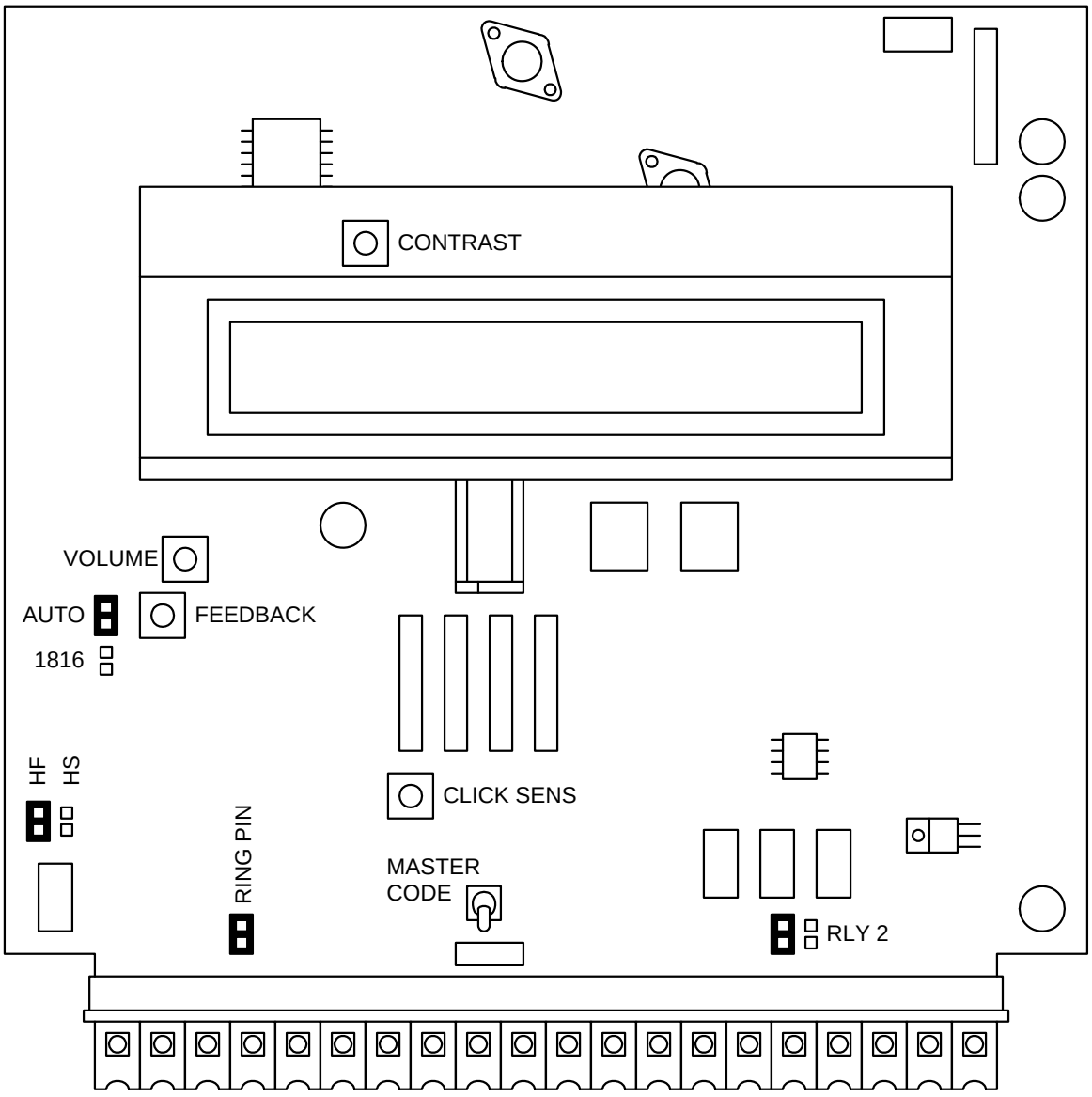
4.8 Auto – 1816 Pin

1. This shorting pin sets the system to operate as a stand-alone unit (AUTO), or to interface with the 1816 Telephone Intercom System. **The pin is set to AUTO from the factory**.

4.9 HF – HS Pin

1. This shorting pin is located in the lower left hand corner of the circuit board. For Hands Free (HF) operation, the shorting pin is placed on the HF pins. For a system with a Hand Set (HS), the shorting pin is placed on the HS pins. **The pin is set to HF from the factory**.

1814 Adjustment Locations



SECTION 5 – OPERATING INSTRUCTIONS

5.1 GUEST INSTRUCTIONS

Instructions on the telephone entry systems guide guest on the usage of the system and how to locate and call the resident that they wish to visit. The 1814 system utilizes A and Z scroll buttons that a guest will use to locate the resident that they are wishing to visit. Pushing the A button will cause the resident directory to scroll up while pushing the Z button causes the resident directory to scroll down. Holding these buttons down will cause the system to scroll or page through the resident directory rapidly. Resident names are listed in the directory alphabetically.

1. If the guest knows the residents directory code, they can simply enter it on the system keypad to place a call.
2. If the guest does not know the residents directory code, they must check the directory and find the person they wish to visit. Guest can use the **A** and **Z** buttons to locate the name in the directory. Once the residents name is displayed, the guest presses the **CALL** button and the system will connect to the resident's telephone.
3. If the residents line is busy, the system will emit a busy signal. If this happens, the guest can press the # key or the CALL button to hang up and then try again. Residents can avoid missing calls (and guest) from the telephone entry system by ordering call waiting from the local telephone company.

DTMF Tones – The telephone entry system can output DTMF tones from the keypad AFTER a call has been answered. (**This capability is only available on certain circuit boards. See page 8**).

- If the # key is pressed by itself – the system will hang-up.

  Example: # = hang-up.
- If any key is pressed prior to the # key, then all keys pressed will emit DTMF tones.

  Example: 1 2 3 4 # = DTMF tones for all buttons including the # key.
- If there is more than a 2-second delay between numbers and the # key, then the # key will hang-up the system.

  Example: 1 2 3 4 - - - - # = hang-up.

5.2 RESIDENT INSTRUCTIONS

Resident control of the door or gate that the telephone entry system controls is limited to opening the door or gate in response to a call from a guest, or they may open the door or gate by using their assigned four-digit entry code. **A resident instruction sheet is included in the back of this manual and may be copied and passed out to your residents**.

5.2.1 Responding to a Guest Call

When communication is established, the resident has the option of opening the door(s) or gate(s) by pressing the programmed tone open number(s) on their touch tone telephone, or they can deny access to their guest by pressing # on their telephone. If access is granted, the resident will hear a confirmation tone in their handset indicating that the door or gate has opened, then the system will automatically hang up.

Residents should be instructed by management to always press the # key on their telephone if they wish to deny a guest access. If a resident hangs up to deny access instead of pressing #, the telephone entry system will remain on line until its programmed talk time expires or until it detects dial tone.

Some newer type telephones emit a short tone rather than a continuous tone when their keys are pressed. This may cause the telephone entry system to not respond to the tone open number. If this happens, simply press the tone open number twice in rapid succession to open the door or gate.

If a resident is using rotary dial telephone, they will grant access to their guest by dialing 9. To deny access to their guest, residents with rotary phones must simply hang up.

5.2.2 Using an Entry Code

Four-digit entry codes provide a means for a resident to gain access by entering their assigned code on the telephone entry system keypad. The four-digit entry code will operate relay 1 or 2 depending on the boundaries that have been programmed into the system (3.5.4).

1. To use entry codes, first press # and then enter the four-digit entry code _ _ _ _ .
2. The system will emit a tone (beep) and the display will show **OPEN** when a valid code is entered on the keypad.

If management decides to utilize resident entry codes, residents should be instructed to keep their unique code secret. Telling other persons their code or allowing other persons to use their code compromises security and defeats the purpose of the system.

5.3 SYSTEM ADMINISTRATOR

The administrator can perform the following operations from a remote location using a touch-tone telephone. You must know the phone number of the system and the system master code.

5.3.1 Opening from a Remote Location

1. Call the telephone number that the entry system is installed on. The system will answer with a short tone (beep).
2. Press * 1 6 and enter the four-digit MASTER CODE _ _ _ _ (beep).
3. Press the desired tone open number _ (beep). NOTE: Refer to 3.2.6 to determine which tone open features have been programmed, i.e. momentary open, hold open, release, hold open one hour and then release.
4. Hang up.

5.3.2 Hold-Open Command

This feature is useful when management wants to open all gates or unlock all doors - perhaps during an emergency situation as an example.

NOTE: Hold open tone numbers must be programmed for the hold-open command to be functional. See Section 3.3.3.

1. Call the telephone number that the entry system is installed on. The system will answer with a short tone (beep).
2. Press * 1 6 and enter the four-digit MASTER CODE _ _ _ _ (beep).
3. Press the hold open tone number that was programmed in section 3.2.6 _ (beep).
4. Hang up.
5. To release the hold-open command and return the system to normal operation, repeat steps 1 through 4. In step 3, enter the DEACTIVATE tone number in place of the HOLD tone number.

5.3.3 Relay Check

The telephone entry system can be called and a check can be made to determine if any of the relays in the system are in a "hold-open" mode. This check can be useful if your gate (or door) is held open and you suspect that the telephone entry system relay may be the cause.

1. Call the telephone number that the entry system is installed on. The system will answer with a short tone (beep).
2. Press * 1 6 and enter the four-digit MASTER CODE _ _ _ _ (beep).
3. The system will emit a series of short tones if the relay is in a continuous activation mode.

   Relay 1 activated: beep - pause - beep - pause . . .

   Relay 2 activated: beep beep - pause - beep beep - pause . . .
4. Press the programmed tone number _ to deactivate the relay (beep). The system will automatically hang up.

5.4 MISCELLANEOUS OPERATING INSTRUCTIONS

5.4.1 Talk Time

The talk time for directory codes 0, 00, 000, 0000 and 1, 01, 001, 0001 is factory set to 4 minutes 15 seconds and cannot be changed. These directory codes should be reserved for use with management or emergency phone numbers that typically require longer talk times. For example, if directory code 000 was programmed to call a management phone number, the system will allow the full 4 minutes and 15 seconds of talk time before automatically ending the call.

5.4.2 Line Sharing

More than one telephone entry system can share the same phone line provided that the units have been programmed for multiple systems on the same line (see 3.2.2). When the unit is programmed for multiple systems sharing the same line, it checks the phone line for 48 volts (not busy) before attempting to place a call. If the phone line is in use, the system will emit a busy signal. If two or more systems are sharing the same phone line, it is important that each system be programmed with its own unique master code. When more than one system is on the same phone line, and a call is placed from one of the systems to a resident, only the system that placed the call will respond to any tone open numbers. Do not be concerned that all the units will activate their relay when the resident presses the tone open number.

5.4.3 Connection to a PBX

If the telephone entry system is going to be connected to a PBX system, you may need to program extension numbers in place of a seven-digit telephone number. To do this, enter the extension number and fill the remaining spaces with the # key in the phone number programming step. For example, if the PBX system uses four-digit extensions and you want to program extension 2217 as a phone number, in step 3, section 3.4.2 press:

3. 2 2 1 7 # # # * (beep).

If the PBX system requires you to dial 9 to obtain an outside line, and you want to program some outside line phone numbers in the system, program the number 9 as one of the alternate area codes. In step 3, section 3.4.3 press:

3. 9 # # # * (beep).

Then program the outside phone number as a long distance number (3.4.4) using the area code reference number used to program 9.

5.4.4 Areas with 10-digit Dialing

If the telephone entry system is installed in an area where the telephone company has instituted 10 digit dialing, simply program the required number of alternate area codes into the system without preceding the area code with the number 1. If 310 was one of the area codes required, in step 3, section 3.4.3 press:

3. 3 1 0 # * (beep).

Then program the outside phone number as a long distance number (3.4.4) using the area code reference number used to program 310. Program additional area codes and phone numbers as described in sections 3.4.3 and 3.4.4.

SECTION 6 – MAINTENANCE

The DoorKing telephone entry system is essentially a maintenance free device. When the unit is properly installed, it should provide years of trouble free service. Maintenance is limited to updating the directory and phone number and/or entry codes when residents move in or out.

The faceplate of the unit should be cleaned on a regular basis to keep contaminants in the air from sticking to the surface and possibly causing pitting. When cleaning the faceplate of the system, never use an abrasive cleaner or cloth. Stainless steel cleaner works very well with a soft cloth for systems with a stainless steel faceplate. A clean damp soft cloth should be used to clean gold plated faceplates.

6.1 TROUBLE SHOOTING

If problems should develop with your telephone entry system, refer to the trouble-shooting guide on the following pages to try and correct any problems. Our experience has shown that a majority of reported problems are actually programming related and can be corrected on site. If problems persist and they cannot be corrected, contact your authorized DoorKing dealer for assistance. Before performing any trouble-shooting, check the following:

1. Have a good VOM meter handy to check voltages and continuity.
2. Have a telephone test set (DoorKing p/n 1800-050 or equivalent) to check the telephone line. Noise on the phone line will cause problems with the entry system.
3. Be sure that the entry system case is properly grounded.
4. Be sure that the telephone wires are twisted.
5. A hum on the system indicates that the phone line or 16 VAC power lines may be grounded. Check to be sure that the phone lines or power lines are not shorted to ground.
6. Check the system power. Be sure that the transformer is properly rated (16 VAC, 20 VA). Keep the wire run from the transformer to the entry system as short as possible. Use 16 or 18 AWG, 600 volt insulated wire only. **The importance of proper power wiring cannot be over stressed!**

SYMPTON	POSSIBLE SOLUTION(S)
Cannot get into programming mode.	• Wrong master code entered. Start over. • Waiting too long between pushing buttons. Enter information quicker. • Keypad is not plugged into board correctly. Cable points down. • Memory chips are installed upside down.
System emits a long tone and cancels programming.	• Waiting too long between pushing buttons. • Forgetting to press * first when programming.
Keypad is dead.	• No power. Check for 16 VAC input power. • Check that the keypad is properly connected to the circuit board. The cable on the plug points down when connected to the circuit board.
Buzz or noise on the phone line.	• Disconnect the phone line from the system and check it with a handset. If line is noisy, problem is with the phone line and not the entry system. • Check for any shorts to ground behind the circuit board. • Check for pinched wires near the door hinge. • Check for 16-volt power shorted to ground. • Check for phone line shorted to ground. • Check that phone wires are twisted. • Check that the proper type of phone wire was used for an outdoor and / or underground application. • Check that all wires, speaker, keypad, etc. are isolated from ground. • Check that the cabinet is properly grounded. Be sure that case ground (terminal 3) is not used as a low voltage common. • Check for excessive voltage drop on 16 VAC power.
Ringing or howling from the speaker.	• Feedback improperly adjusted (4.2). • Volume is set too high (4.1).
After dial out, dial tone is heard on the speaker.	• Phone line is a rotary-dial line. Have the phone company change it to a touch-tone line.
Door strike locks on.	• Excessive voltage-drop on 16 VAC line. • Using a transformer with too low VA rating. • Relay strike time programmed too long (3.2.4).
Door strike or gate operator holds open.	• System was given a hold open command. Call the system and press the tone deactivate number (5.3.2).
Entry system will not answer when called.	• Ring pin is not installed (4.6). • Bad phone line or insufficient ring voltage.
Rotary dial 9 will not activate relay.	• Adjust click sensitivity (4.3).
Touch-tone 9 will not activate relay.	• Re-program tone-open number to 9 (3.2.6). • If resident phone emits a short pulse rather than a long tone, press 9 twice in rapid succession 99 . • Try another phone that is known to work. • Lower speaker volume (4.1) and re-adjust feedback (4.2).
Relay activates but gate operator will not open.	• Re-program relay strike time for a longer period (3.2.4). • Check wiring to gate operator. • Check gate operator.
Postal switch will not activate relay.	• Be sure that the wire-tie has been clipped off the postal switch. • Be sure that the relay has been programmed for postal switch input (3.2.7).

SYMPTON	POSSIBLE SOLUTION(S)
Four-digit entry codes will not work.	• Forgetting to press # first. • Re-program the entry code ranges (3.5.4).
Entry codes will not activate relay 1.	• Re-program relay 1 low and high ranges (3.5.4).
Entry codes will not activate relay 2.	• Re-program relay 2 low and high ranges (3.5.4).
System emits a beep every 30 seconds.	• Master code switch is in the ON position (4.5).
DTMF tones are heard 15 seconds after call is answered.	• The system CALL UP feature is turned on. Re-program this feature to turn it off (3.2.3).
LCD Display shows: Reset Mem? 1 = Y 2 = N	• The memory chip size (small chip) and the main memory storage ship (large chip) do not match in memory size. By pressing 1, the main memory storage chip will be matched to the memory size chip. **All data in the main memory will be erased when this function is performed.** • Press 2 to cancel out of this function.
LCD display shows: Need 1815(17) SM MEMCHIP	• The small chip in the PC board socket is for an 1818 system and cannot be used in the telephone entry system.
LCD is unreadable.	• Adjust contrast (4.4).

6.2 ACCESSORIES

Surface Trim Ring	Use to recess a surface mount unit into a wall or column. P/N 1803-150.
Flush Kit	Use to install flush style units into a wall or column. Kit includes rough in back box and trim ring. P/N 1814-165 comes with stainless steel trim ring. P/N 1814-166 comes with gold plated trim ring.
Flush Ring	Use to surface mount a flush style unit. P/N 1814-152.
Stainless Steel Case	Replaces the black steel surface mount case with a stainless steel case. P/N 1810-102.
Surge Suppressers	High voltage (115 V) suppresser. P/N 1878-076. Phone line suppresser. P/N 1878-077. Low voltage (28 V) suppresser. P/N 1878-078.
Mounting Post	Heavy-duty Architectural Style mounting post: P/N 1200-037. Heavy-duty Architectural Style mounting post – Long: P/N 1200-038.
Telephone Test Set	Includes clips, cord and carrying case. P/N 1800-050.
Battery	12 volt .8 amp hour gel cell provides stand by power during power interruptions. P/N 1801-008.

6.3 LOG TABLES

Complete the information in the tables on the following pages to maintain a record of the information that has been programmed into the telephone entry system.

Make copies of the resident log sheet so that you have enough to complete a listing of all residents and data. Enter the information as shown in the example below. AAC stands for Alternate Area Code. Enter the alternate area code number if alternate area codes have been programmed and assigned to this resident (3.5.3). DIR is the resident's unique directory code and can be 1 to 4 digits (3.5.1). Enter the resident's four-digit entry code (3.7.1) in the ENT field if they are used.

NAME	AAC	PHONE	DIR	ENT
SMITH, JOHN	3	765-0000	173	3812

MASTER CODE (3.2.1)			

RELAY STRIKE TIME (3.2.4)	
RELAY 1	RELAY 2

TONE OPEN NUMBERS (3.2.6)	RELAY 1	RELAY 2
MOMENTARY ACTIVATION		
CONTINUOUS ACTIVATION		
RELEASE		
ACTIVATE FOR 1 HOUR		

POSTAL SWITCH ACTIVATES (3.2.7)	
RELAY 1	RELAY 2

ROTARY 9 ACTIVATES (3.2.9)	
RELAY 1	RELAY 2

ENTRY CODE RANGES (3.5.4)	RELAY 1	RELAY 2
LOW BOUNDRY		
HIGN BOUNDRY		

AREA CODES (3.4.3)									
1	2	3	4	5	6	7	8	9	0

NAME	AAC	PHONE NUMBER	DIR CODE

Make additional copies of this table as needed.

Resident Instruction Sheet

Your building / community has been equipped with a DoorKing Telephone Entry System that will provide communication for your guest from the lobby door / gated entrance to your home by use of the local telephone network. If you have any questions regarding the use or operation of this system, please see your system administrator (building manager / HOA representative) or call _____

Guest Communication

Your name (or apartment number) and telephone number have been programmed into the telephone entry system under a specific DIRECTORY CODE. This directory code can be from 1 to 4 digits long depending on the needs of the application. When a guest comes to visit you, they will look your name up in the electronic directory by using the A and Z buttons on the faceplate of the system. Once your guest has located your name, your DIRECTORY CODE will be displayed to the right of your name. Your guest will enter this code on the system keypad that will cause the system to place a call to your home (If your guest already knows your directory code, they can simply enter the code on the keypad without having to look up your name). Some systems are equipped with a CALL button. When your name is displayed in the directory, the guest can press the CALL button to establish communication with your home.

Granting or Denying Access

Once you have answered the phone call and you have identified your guest, you have the choice to either grant access or deny access to your guest.

To grant access to your guest, press _____ on your touch-tone telephone. The telephone entry system will respond with a confirmation tone indicating that the door or gate is opening and will automatically disconnect itself. Some newer telephones emit a very short duration tone when the number is pressed. If your telephone does this, you may have to press the open number twice in rapid succession to open the door or gate.

To deny access to your guest, press the # key.

Rotary Phone Only. If you have a rotary dial phone, dial 9 to grant access. To deny access, hang up.

Call Waiting

If you are on the telephone when a guest tries to contact you from the telephone entry system, they will hear a busy signal and will have to wait for you to end your call before they can contact you. To eliminate this problem, you can order call waiting from your local telephone company.

Privacy

If you do not want your name and/or apartment number listed in the electronic directory, inform the system administrator of this. Your telephone number can be stored in the system without your name being displayed on the directory. If you choose this option, you will need to inform your guest of your directory code, otherwise they will have no method of contacting you from the entry of your building / community through the telephone entry system.

Access Code

Your system may be equipped with an access code that will allow you to open the door / gate by entering this code on the system keypad. Your system administrator will advise you of your access code if this option is available. To use the access code, first press the # key, and then enter the four digit code.

System Administrator - Fill in the blanks above and copy this instruction sheet for your residents.